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Internal Resistance Can Doom Offshore Projects

Disgruntled insiders may block outsourcing; care needed when choosing project leaders

BY PATRICK THIBODEAU
NEW YORK

The most serious threat to companies' efforts to send work offshore isn't coming from angry protesters and politicians. It's coming from managers who are intent on torpedoing their companies' offshore projects, executives in charge of such projects said last week.

Disgruntled managers,

worried about shifts in responsibilities or the loss of their jobs or the jobs of co-workers, can easily thwart offshore projects, the executives said.

Opposition can take many forms. Individuals may block meetings with vendors and consultants, raise numerous points of opposi-

tion throughout the process in an effort to frustrate it, or even take more nefarious actions such as sabotaging code developed offshore, the executives explained.

Rick Pfeiffer, former head of Asia-Pacific IT and operations at General Electric Co., one of the first U.S. companies to move work offshore, said that 60% of offshore project failures can be attributed to "someone directly

INSIDE

Self-censorship about offshoring is unspeakable, says Maryfran Johnson. **Page 18**

Offshoring, page 10

Users Weigh Linux Risk

LinuxWorld attendees vary on the need for a shield from lawsuits

BY TODD R. WEISS
NEW YORK

IT professionals appear to be split on whether new legal indemnification programs from major Linux vendors will fuel wider adoption of the open-source operating system.

At the LinuxWorld Conference & Expo here last week, a sampling of users in businesses where IT is mission-critical, such as insurance and health care administration, said the expanded indemnification programs make them more comfortable with Linux. But they said other factors re-

main to be addressed inside their companies before they can decide how to proceed.

Other users said indemnification simply isn't an issue for them or is at best far down on their lists of criteria for Linux adoption.

The topic of indemnifying, or protecting, companies that use Linux from legal actions similar to the lawsuit filed earlier this year by The SCO Group Inc. against IBM arose frequently during last week's event. IBM in fact said that it

LinuxWorld, page 14

Retailers See RFID Ahead

Say it's only a matter of time before adoption

BY CAROL SLIWA

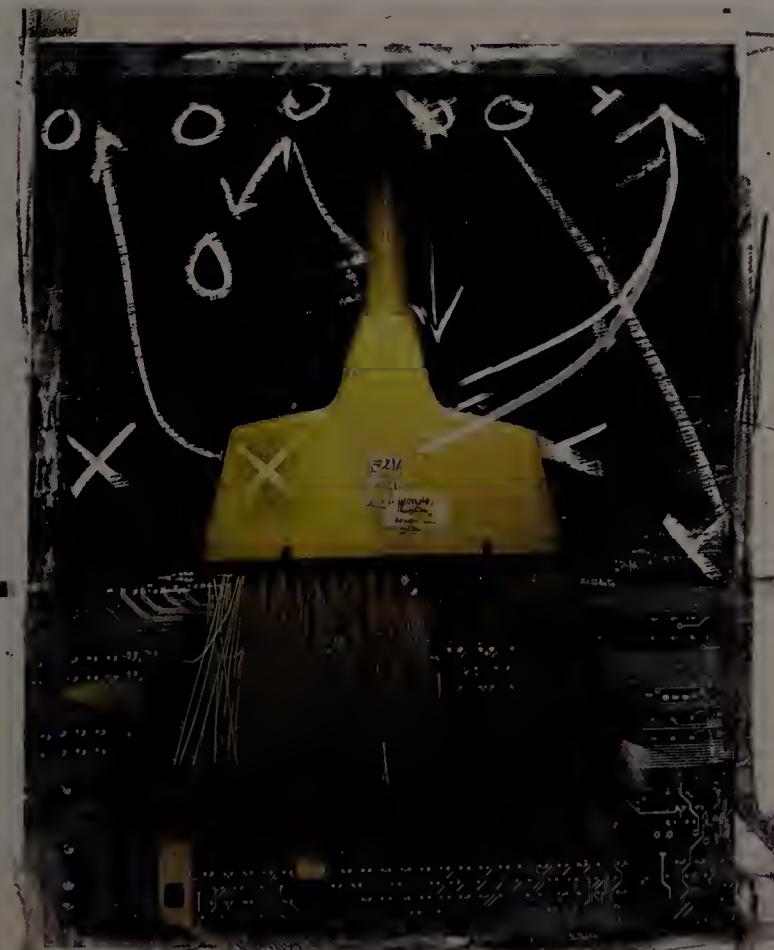
Retail executives are now saying "when," not "if," as they consider the use of radio frequency identification tags to track goods through their supply chains and ultimately in their stores.

That's a marked change from a year ago, when many expressed guarded sentiments about RFID's prospects and

Retail RFID, page 51

SOFTWARE Sweep

SHELFWARE — software licenses sitting unused — can accumulate for a variety of reasons, including poor asset management, canceled or scaled-back projects, corporate downsizing and bad purchasing decisions. We've identified four strategies for clearing the shelves. **PAGE 35**



Barriers to RFID

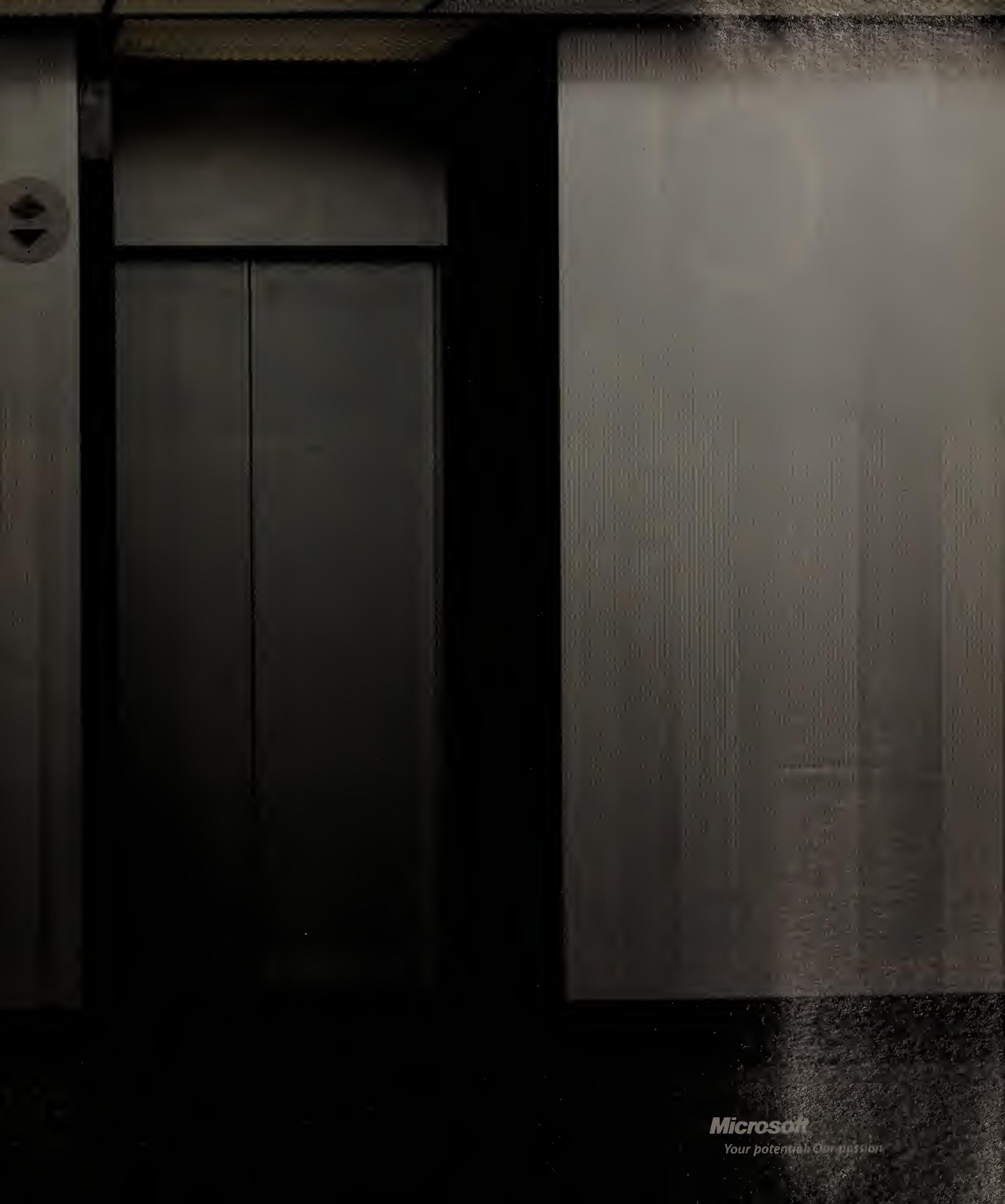
Too expensive	61%
Suppliers don't use it	52%
Difficult to integrate	31%
Consumers' privacy concerns	30%
Too complicated	23%

* Multiple responses allowed

SOURCE: FOCUS OF 67 RETAIL EXECUTIVES BY BEAUMONTPOINT INC. AND THE NATIONAL RETAIL FEDERATION, 2004

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Rights Management Services



12:37 pm No one asks for help with
setting up a sales team web site.



AT DEADLINE**Former CA Finance Exec Pleads Guilty**

A former Computer Associates International Inc. finance executive who resigned in October pleaded guilty to obstruction of justice in connection with a federal investigation of CA's accounting practices. CA said Lloyd Silverstein, who was its senior vice president of finance, also lied to internal investigators when asked about alleged improper revenue recognition. The Securities and Exchange Commission is considering civil charges against the company.

AT&T Wireless Puts Itself Up for Sale

AT&T Wireless Services Inc. confirmed that its board is considering a possible sale, but officials at the Redmond, Wash.-based company declined to set a timetable for striking a deal. AT&T Wireless also reported an \$84 million fourth-quarter loss and said customer turnover increased partly as a result of a problematic CRM upgrade [QuickLink 42831].

Microsoft Reports 19% Revenue Gain

Microsoft Corp. said revenue in its second quarter rose 19% year over year to \$10.15 billion, with strong PC demand leading to double-digit growth in sales of Office and Windows XP. The company had a \$1.55 billion profit for the quarter, which ended Dec. 31.

Microsoft also eased the terms under which it licenses Windows communications protocols to other technology vendors.

Savvis to Acquire C&W Hosting Unit

Cable & Wireless PLC's U.S. Web hosting unit has accepted a buyout offer from Savvis Communications Corp. in St. Louis. C&W last month agreed to sell its assets to Gores Technology Group LLC [QuickLink 43474], but other buyers had a chance to outbid Gores in U.S. Bankruptcy Court.

Segway's Tech Plans Look Down the Road to Growth

Transporter maker builds IT strategy around Oracle, VoIP and outsourcing

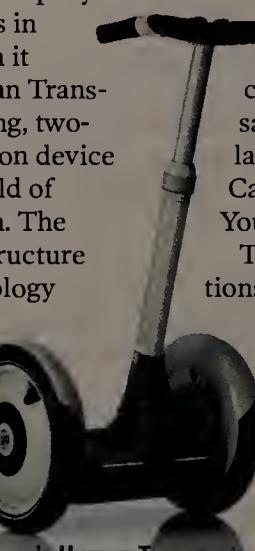
BY THOMAS HOFFMAN
MANCHESTER, N.H.

INSTALLING an outsourced set of enterprise-class finance and manufacturing applications and deploying a voice-over-IP system aren't your typical small-company moves. But Segway LLC isn't a typical small company.

Segway made news in December 2001 when it introduced the Human Transporter, a self-balancing, two-wheeled transportation device that was the brainchild of founder Dean Kamen. The company's IT infrastructure includes VoIP technology that was put in place last summer and a finance system that was upgraded late last year to a new version of Oracle Corp.'s E-Business Suite 11i applications.

The finance system is hosted by Fremont, Calif.-based Appshop Inc., which manages the Oracle applications from a Sprint Corp. data center in Denver. Segway CIO Patrick Zilvitis said in an interview this month that when he joined the company in the fall of 2000, he quickly decided that outsourcing would be the wisest path for a start-up that had a minimal IT infrastructure and wanted to hold down its technology costs.

"I suggested that we shouldn't build a data center or a big, dedicated IT staff but instead [should] use software under a hosted environment that we could grow with," said Zilvitis, who was CIO at The Gillette Co. before taking the Segway job on a part-time basis.



Segway's Human Transporter first made headlines in 2001.

Outsourcing "allows us to upsize or downsize our IT infrastructure as needed," noted Scott Frock, Segway's director of finance. "For a small-to-medium-size company, there are a lot of advantages."

Outsourcing also lets companies like Segway avoid up-front investments in servers, software and technical support staffers, said Terry Jost, a Dallas-based consultant at Cap Gemini Ernst & Young LLP.

The Oracle applications were initially rolled out in early 2001. Before Zilvitis came on board, Segway had been using Intuit Inc.'s QuickBooks accounting software. He said that to support its expansion, the company had to upgrade to an accounting package designed for small and midsize businesses or a larger system

that it could grow into.

Segway opted for the second choice to avoid the potential need for a "painful and expensive" conversion later, Zilvitis said.

After evaluating software from Oracle and SAP AG, the company chose an uncustomized version of the Oracle suite that's geared to discrete manufacturers. The system includes manufacturing and order management modules in addition to the finance applications, and workers at Segway's headquarters here and its manufacturing plant in nearby Bedford, N.H., access the software via Windows 2000 PCs.

Poised for Expansion

Segway began upgrading to Oracle's 11.5.9 release over the Thanksgiving weekend and completed work on the core applications late last month.

The company is also adding software that will let workers at its customer service partner, Frazer, Pa.-based DecisionOne, access product warranty data and other information via Web browsers. Zilvitis said that capability should be

"I suggested that we shouldn't build a data center or a big, dedicated IT staff."

PATRICK ZILVITIS, CIO, SEGWAY

added within six months.

To more effectively support network connections to Appshop and its own manufacturing plant, Segway replaced its private branch exchange switches with VoIP equipment for "considerably less than \$20,000," Zilvitis said.

He added that the transition has provided several benefits, including the ability to set up low-cost switchboard extensions for remote employees, extra voice and data bandwidth for future growth, and cheap yet reliable connections to Sprint's data center.

For instance, Segway's Internet connection to Denver costs the company \$1,000 to \$2,000 per month, according to Zilvitis. By contrast, the monthly tab for a T-1 connection would have been \$10,000 to \$12,000, he said. **44266**

Company Makes Do With Part-time CIO – for Now

When Patrick Zilvitis took early retirement from Boston-based Gillette in 1999 after a decade as its CIO, he looked forward to skiing, hiking and spending more time with his family. Then in 2000, Zilvitis got a call from a recruiter working on behalf of a Segway investor.

It didn't take long for Zilvitis to become enamored with the start-up. However, he told Segway executives that he would agree to run the company's IT operations only if he could be a part-time CIO who worked just a

few days a week. The company agreed, and Zilvitis said the part-time gig has worked out well for both him and Segway.

In addition to Zilvitis, the IT staff currently includes three people: an Oracle administrator and two people who manage LANs, WANs, voice networks and Segway's PCs and servers. Zilvitis said he frequently checks e-mail when he's not at work, but the employees who report to him are "entrusted with more autonomy than usual."

Things will soon be changing,

though. The company is growing and is about to reach the point where it will need to have a full-time CIO, said Zilvitis, adding that he expects to find a replacement within the next six months.

The temporary nature of Zilvitis' job was part of the understanding between him and Segway from Day 1, Zilvitis noted.

"I told them that if the company took off, I would replace myself with someone who could manage IT full time," he said.

— Thomas Hoffman

Experts Split on Internet-based Absentee Voting System's Security

Four members of review panel claim hackers could easily influence elections

BY JAIKUMAR VIJAYAN

A federally funded Internet-based voting system slated for use in this year's primary and general elections has unsolvable security vulnerabilities that leave it open to widespread vote tampering and privacy breaches.

That opinion was expressed last week by four members of a 10-person peer review group assigned to identify potential flaws in the Secure Electronic Registration and Voting Experiment (SERVE). Backers of SERVE counter that the security concerns are being overblown.

The system is being developed as part of a government initiative to make it easier for U.S. armed forces personnel and overseas civilians to vote. But the four critical members of the peer review group said that the SERVE system has so many vulnerabilities that further development should be immediately abandoned.

Potential Weaknesses

The problems lie in the inherent insecurities associated with Internet and PC-based systems, said David Wagner, an associate professor at the University of California, Berkeley, and one of the security experts assigned to review the prototype SERVE system.

The potential threats include viruses and worms, denial-of-service attacks and Web site spoofing, Wagner said. An attack using any of those methods on the main SERVE system or any of the PCs being used by voters could seriously compromise the results, Wagner said.

"SERVE is susceptible to large-scale election fraud that could be launched from outside the reach of U.S. law and go completely undetected," he said.

For instance, it would be relatively easy for malicious

hackers to insert spoofed Web pages that appear to belong to the SERVE system but are actually designed to alter votes or prevent them from being cast. A voter using a PC infected with a virus or worm could easily jeopardize the integrity of the system, Wagner noted. And the particularly dangerous part is that such hacks could be carried out without ever being detected.

"I think that a dedicated and experienced hacker could subvert the election rather easily,"

said Avi Rubin, a professor at Johns Hopkins University and one of the security experts that reviewed SERVE. "I don't think that Internet-based voting such as SERVE can be made secure enough for use until we can develop computer systems that are not vulnerable to viruses and Trojan horses, and until we can develop an Internet that is resistant to denial-of-service attacks." The full report is available online [QuickLink a3970].

Meg McLaughlin, president of eDemocracy Services at Accenture Ltd., the prime contractor for the project, dismissed the concerns. "Every-

thing that was raised in this report, we have talked about in this project," McLaughlin said, adding that in each case steps have been taken to minimize the threat, including stringent user authentication and encryption of data.

Each online voter will also be presented with a confirmation screen that will allow him to verify whether the ballot has been properly received by SERVE.

Information about the vote is also kept separate from information about the voter, and at no time will anyone be able to link the two together, McLaughlin added.



I think that a dedicated and experienced hacker could subvert the election rather easily.

AVI RUBIN, professor, Johns Hopkins University

Thad Hall, program officer at The Century Foundation, a Washington-based public policy think tank, is one of the peer review members who disagrees with the security assessment of the four members who were critical of the system.

"The risks associated with an Internet-based voting system are no more or less than a paper-based system," he said. Hall added that the initial

SERVE tests were deliberately small in scope and weren't being viewed as an evaluation of a full-fledged voting system.

Q 44255

New Tools Shift Focus to Internal Network Security

Products designed to detect attacks from within emerge

BY JAIKUMAR VIJAYAN

Last year's Slammer and Blaster viruses, which spread via infected PCs, highlighted the need for IT managers to focus not only on perimeter defenses, but also on internal network vulnerabilities and compliance with security policies.

Since those attacks, several vendors have introduced products to help IT workers deal with both issues. The latest is Check Point Software Technologies Ltd., which last week introduced a security appliance called InterSpect that's designed to detect and block attacks originating from inside a company's network.

Redwood City, Calif.-based Check Point said InterSpect inspects internal network traffic for virus signatures and other patterns that suggest an attack is taking place. The technology lets users identify and quarantine infected systems to prevent any damage

TECHNOLOGY DETAILS

InterSpect

- Blocks attacks and the spread of worms and viruses inside corporate networks
- Supports network segmentation to help contain attacks
- Lets IT managers quarantine and isolate suspicious systems

from spreading, said Shankar Swamy, a Check Point product manager. It also allows IT administrators to segment networks into separate security zones to further contain an attack.

Such capabilities are crucial for protecting networks against internal compromise, said InterSpect beta tester Greg Murray, vice president of information security at Information Resources Inc., a Chicago firm that does market research for food, consumer goods and pharmaceutical companies.

Some companies that were otherwise well protected got hit by the Blaster virus when mobile workers reconnected infected notebook and laptop

PCs to corporate networks, Murray said. Products like InterSpect can help users identify infected systems faster and cut them off from the rest of the network, he added.

"It automates the identification and containment of internal threats," said Murray, who has been testing InterSpect for several months. Information Resources, which stores more than 130TB of research data on its network, is using the Check Point technology to carve out separate network zones for each of its five testing and quality assurance labs.

Check Point's product joins a growing list of security tools with similar objectives. For example, Cisco Systems Inc. in November said it was teaming with Symantec Corp., Network Associates Inc. and Trend Micro Inc. to develop technologies to help companies block or safely quarantine PCs, servers and other devices that don't comply with corporate policies. Sygate Technologies Inc., InfoExpress Inc. and Zone Labs Inc. also sell products for enforcing security policies on systems used by remote workers.

Boston-based MFS Investment Management uses software developed by Found-

stone Inc. to continually scan and inventory the systems on its networks. The software helps MFS detect systems that are vulnerable to new security threats, assess the level of risk that the threats pose and prioritize responses, said Tom Clark, MFS's vice president of corporate systems security.

"The knowledge and ability to allocate the right resources to the right vulnerabilities at the right time has been the fundamental ROI," he said.

Q 44261

Corrections

A story about Calpine Corp. CIO Dennis Fishback that ran in the Premier 100 IT Leaders 2004 special section on Jan. 5 incorrectly reported the total amount of IT costs that Calpine has cut from its budget since 2001. The San Jose-based company has reduced costs by more than \$44 million, according to Fishback.

In the Jan. 12 Management feature "The Forest vs. the Trees," Computerworld should have noted that Paul A. Strassmann's Information Productivity methodology includes factors such as profits, cost of capital and capital risk, in addition to total costs of information.

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BRIEFS

IBM Says It Will Add 15,000 Jobs

IBM, which has made a series of small layoffs since last September, said it plans to add 15,000 jobs worldwide this year — a move that would increase its workforce by 5%. About 4,500 of the new jobs will be based in the U.S., an IBM spokeswoman said. The company also plans to spend \$200 million to train up to 100,000 workers in hot IT skills, such as Linux and Web services.

Dell Warns About Defect in Server

Dell Inc. warned that its Power-Edge 1650 server can overheat, emit smoke and shut down because of a defective component. Dell said it will replace the motherboards on all 1650s sold between last January and early May. The 1650, a rack-mounted server for use in data centers, was dropped in mid-2003 after Dell introduced a system called the 1750.

Siebel Buys Maker Of Call Center Apps

Siebel Systems Inc. has agreed to buy Ineto Services Inc., a developer of hosted call center applications, for up to \$5 million in cash. This would be Siebel's second acquisition of a hosted CRM software vendor in three months; the company bought UpShot Corp. in November. Siebel also reported a \$41.5 million profit on revenue of \$366.7 million for last year's fourth quarter.

Sun Nabs Content Switch Vendor

Sun Microsystems Inc. said it will acquire Nauticus Networks Inc., a vendor of content switches designed for use with Web-based applications. Financial terms weren't disclosed. Sun said it plans to integrate Nauticus' technology with its line of blade servers.

MARK HALL ■ ON THE MARK

Spam-Detection Tech Reaches Its Limits . . .

... so IT managers need to shift their spam-fighting strategies, claims Paul Judge, chief technology officer at CipherTrust Inc. in Alpharetta, Ga. "With spam no longer being a small percentage of messages and now being the majority of e-mail, we need to fight the problem the other way around," he suggests. In short, identify the good messages and let them through, and chuck everything else. That's part of the logic

behind the company's IronMail 4.0 appliance, which is being released today. CipherTrust has boosted the power of its Enterprise Spam Profiler (ESP) tool in IronMail to more accurately distinguish good messages from bad ones. Geoff Catron, director of networks/security for the Georgia Department of Technical and Adult Education, manages the messaging on 34 campuses and a central office, each of which uses an IronMail 3.0 appliance. He's looking forward to 4.0 because of the improvements in ESP. Catron says the central office alone gets 12,000 messages a day, and 92% are spam. Getting to that good 8% takes some diligent tuning of the ESP, he says. At the central office, where one of Catron's engineers regularly tunes the filtering parameters, that's not a big deal. But separating the wheat from the spammy chaff is more problematic on the campuses, where staff have different skill levels and face differ-

ent day-to-day challenges. But with 4.0, CipherTrust will take over tuning the ESP to locate good mail and regularly download updates to user appliances with improved processing techniques. IronMail 4.0 also adds Bayesian and URL filtering. Pricing starts at \$27,000. ■ Phil Raymond agrees with Judge that traditional spam filters are imperfect. "We know the perfect filter is the pocketbook of the spammer," says the CEO of Vanquish Inc. in Marlboro, Mass. Raymond anticipates that Vanquish will later this year unveil a new antispam system that's driven by economics. He says the planned service and software offering, while complex, will let legitimate bulk e-mailers offer users a financial incentive to reject unwanted messages. The legit crowd, such as newsletter publishers, will put up a bond for each mailing and bet that very few recipients will reject them. However, if you do get an un-

Laszlo Systems Inc. in San Francisco this week will release Laszlo Presentation Server 2.0 with its new Krantz Optimizer. The upgrade is ideal for online, transaction-based programs. It combines Macromedia Flash and XML to deliver interactive, high-performance applications. It's free for developers at www.lazosystems.com/developers. Enterprises deploying it will fork over \$22,500 per server CPU.

wanted message, you can reject it with a button that's attached to each e-mail and, say, **socket a buck in a PayPal account**. Under this scheme, a tally is kept of every time you reject an e-mail (and pocket the money) so that other mailers can determine your sensitivity to unsolicited messages and drop you from their lists. Raymond hopes that over time, legitimate bulk mailers will embrace a system like this so completely that any bulk e-mail from an unknown source will automatically be rejected by all mail systems.

■ When you're done fighting spam (yeah, right), you can return to securing your data, which is **most at risk from internal malcontents**. That's the logic behind OmniTrust Security Systems Inc.'s Trusted Environment. It lets you set policies dictating who can see what documents when, based on where they are and what device they're using. Michael Mansouri, CEO of the Mountain View, Calif., company, which is changing its name from Probix Inc. tomorrow, says you can have policies for remote laptops and handhelds that are different from those for desktop PCs.

■ Are your users **having trouble managing their passwords**? According to Greg Fournier, product line manager at American Power Conversion Corp. in West Kingston, R.I., the average employee has about 17 of them. And help desk experts say the No. 1 request from callers is for assistance with forgotten passwords. Biometric devices can consolidate your passwords and add security to a PC. But they're pretty pricey. Or have been. In early March, APC will release its Biometric Manager for under \$50. It will remember all of your passwords (except for the one to its master file of encrypted passwords) and apply them to the right applications. Right now, it's Windows only, but **you second-class Macintosh citizens will get a version later in the year**. ■ 44233

ERP Vendors 'Earning Little Loyalty'

BY MARC L. SONGINI

Vendors of ERP software are apparently making little progress in differentiating their brands, according to a recent survey by The Yankee Group.

Users who were asked to evaluate major ERP vendors such as Oracle Corp., SAP AG, IBM and PeopleSoft Inc. said they find them to be more alike than different, said Jon Derome, an analyst at the Boston-based research firm. That means repeat business is key to success in the ERP mar-

ketplace, and upselling to one's installed base will be crucial to vendor survival, he said.

The Yankee Group, which funded the research itself, surveyed 350 executives in companies that run software from various ERP vendors and found that respondents were most likely to implement or recommend Oracle software. Oracle won plaudits from 32% of those surveyed. PeopleSoft was touted by 29% of the respondents, and SAP was backed by 26%. J.D. Edwards &

Co., Microsoft Great Plains and IBM were each cited by 14%. IBM was cited strictly on the strength of its name; IBM is not an ERP vendor.

Those numbers are all well below the 50% level that would be considered a healthy rating, said Derome.

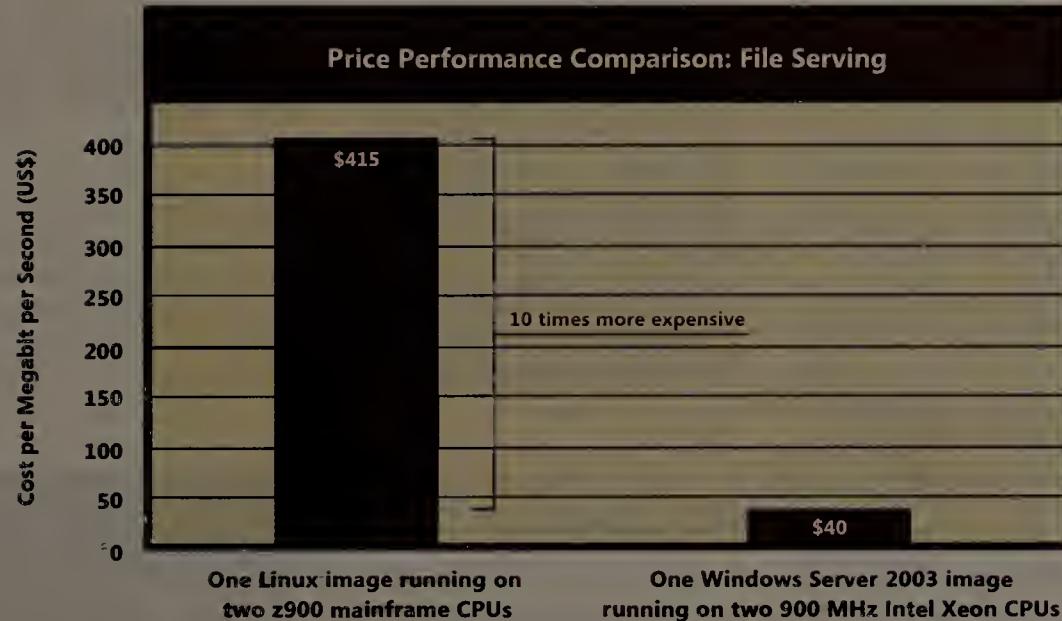
One user offered his own critique. John Schindler, CIO at lighting fixtures maker The L.D. Kichler Co. in Cleveland, said companies generally have too much vested in their ERP systems to scrap an installa-

tion even if they wanted to. While some ERP vendors might have an edge in a specific industry, their overall performance is about the same, said Schindler, whose company uses PeopleSoft software.

And support is handled poorly by companies across the board, added Schindler, a former Oracle user. "It's a license to steal, and the dollar amounts are reaching levels that are not justified," he said. "All the majors use some sort of percentage increase annually, which builds over time to an annuity that is just out of line." ■ 44275

WEIGHING THE COST OF LINUX VS. WINDOWS? LET'S REVIEW THE FACTS.

Source: Microsoft 2003 (Audited by META Group)



Linux was found to be over 10 times more expensive than Windows Server™ 2003 in a recent study.

The study, audited by leading independent research analyst META Group, measured costs of Linux running on IBM's z900 mainframe for Windows-comparable functions of file serving and Web serving. The results showed that IBM z900 mainframe running Linux is much less capable and vastly more expensive than Windows Server 2003 as a platform for server consolidation.

To get the full study and other third-party findings, visit microsoft.com/getthefacts

Bank Group Offers Guidelines On Outsourcing Security Risks

Publishes 33-page spreadsheet to help gauge if vendors can protect IT systems

BY LUCAS MEARIAN

A CONSORTIUM of the country's top financial services firms last week published a set of industry guidelines to use in evaluating the security risks of IT outsourcing deals.

The Banking Industry Technology Secretariat (BITS) in Washington released the security guidelines as an addendum to an existing framework for managing business relationships with IT services

providers. The group's goal is to help financial services firms streamline the outsourcing evaluation process and better manage the risks of handing over control of key corporate systems to vendors.

The guidelines are based on the International Standards Organization's ISO 17799 code of practice for information security management, which covers categories such as documenting corporate security policies and classifying assets.

They also include best practices gathered from BITS members and input from vendors, government agencies and third-party IT auditors, said Faith Boettger, a senior consultant at BITS.

Bob Cedergren, second vice president of information security and business continuity planning at Fortis Inc., a financial services firm with U.S. operations in New York, said security concerns related to outsourcing are getting more attention in corporate boardrooms. "Each time there's a virus outbreak, this gets discussion within our CIO group here at Fortis as well as with the CEOs" of individual business units, Cedergren said.

The BITS guidelines, which are built into a 33-page spreadsheet, provide a single set of rules for evaluating outsourcing and IT services vendors, Cedergren said. He noted that in the past, each of Fortis' operating units had its own vendor evaluation procedures. "This puts it down on paper

What to Ask

BITS recommends that IT managers consider the following security-related outsourcing issues:

- Do IT services firms have appropriate security policies and management procedures in place?
- Have they reviewed systems for maintaining an accurate inventory of IT assets?
- Are outsourcing work areas business partners qualified to fulfill their responsibilities?
- Are data centers physically protected and accessible to authorized individuals?
- How do they handle compliance with security regulations?

and creates a common set of expectations for us," he said.

Many of the financial services industry's certification standards, including Statement on Auditing Standards No. 70, SysTrust and WebTrust, don't fully cover what

companies have been looking for in a best-practices matrix, according to Boettger. "Financial institutions were deploying their own internal resources or engaging third parties to perform due diligence and ongoing reviews to close that gap in the assessment requirement," she said.

With the added security guidelines, BITS's framework now includes questions to ask IT services vendors during each stage of the outsourcing process, including risk management, planning, testing and governance, Boettger said. The framework was originally published in 2001 and was updated by BITS last November.

One key area that wasn't covered in earlier guidelines was business continuity, which now falls under the umbrella of information security at Fortis because of terrorist attacks around the world and last August's blackout in parts of the northeastern U.S. and Canada, Cedergren said.

He added that Fortis' IT department takes time to understand the security procedures of service providers and then writes into any outsourcing contracts provisions that allow audits and on-site reviews as needed. **44249**

Retaining the Crown Jewels

Some work can't be moved overseas, or even out of the company, because it's too specialized. That was the case at TWI Interactive Inc., the Boston-based digital media arm of global sports and entertainment marketing firm IMG.

Last year, TWI set out to increase the efficiency of its IT operations and cut costs while retaining ownership of its crown jewels: business knowledge about sports.

In April TWI signed a deal with SevenSpace Inc., an Ashburn, Va.-based firm that specializes in managing only certain parts of a company's IT operations so the client can retain the processes it believes it can do better than any service provider.

John Watson, vice president of business development and head of the IT division at TWI Interactive, said he expects about \$2 million in savings over three years as a result of reduced IT labor and systems spending. SevenSpace is doing the work in the U.S., something Watson wanted so he could maintain a close relationship with the service provider. He said TWI eliminated 21 IT jobs, but about half of those

workers moved to SevenSpace. Watson said TWI is retaining all application and content development because the developers must have expertise in sports. "That's the thing we understand and know how to do," he said.

Many companies, however, do choose to outsource application development to service providers with specialized business knowledge, including some that are offshore. David Tapper, an analyst at research firm IDC in Framingham, Mass., said that if prospective outsourcing partners claim to have specialized business expertise, a company considering its services should ask for customer references and speak to the outsourcing's users for verification.

While SevenSpace currently provides IT infrastructure services in the U.S., the company is exploring the use of offshore resources. CEO Peter Weber said that he considers offshore operational management capabilities to be immature but that in the next six months, his firm will conduct live tests of offshore operations.

- Patrick Thibodeau

Continued from page 1

Offshoring

tied to it [who] has seen to it that it falls off the rails."

Internal opposition is "one of the top reasons why projects don't go through," echoed Cliff Justice, managing director at NeoIT.com Inc., a San Ramon, Calif.-based offshore consultancy.

Advice for dealing with internal resistance, offered at a Strategic Research Institute LP conference here last week, includes ensuring strong support from upper management, picking the right people to head the effort and getting managers involved early in the process.

"Choose the business unit manager who is going to be

Continued on page 11



Parametric Tries to Simplify Its Product Management Applications

Windchill upgrade adds integrated collaboration, data control capabilities

BY JAIKUMAR VIJAYAN

Though software vendors tout the use of product life-cycle management tools as a way to improve manufacturing efficiencies, many companies are continuing to drag their feet when it comes to adopting PLM products.

Some vendors have responded by trying to make their software easier to use and integrate with other corporate applications. Parametric Technology Corp.'s introduction last week of an upgrade of its Windchill PLM suite is a case in point.

Waltham, Mass.-based PTC said the software was completely redesigned as part of its Windchill 7.0 upgrade. New features include integrated end-user collaboration and data control capabilities, plus hooks for tying PLM data to applica-

tions such as ERP and supply chain management systems.

Improved data visualization, support for J2EE and Web services technologies, and PDF-based document collaboration capabilities are also being added, according to PTC. The upgrade is aimed at "reducing complexity and risk" for users of the software, said Jim Heppelmann, an executive vice president at the company.

Seeking Clarity

Ping Inc., a Phoenix-based maker of sporting equipment that uses PTC's software, is evaluating Windchill 7.0 for a possible upgrade later this year. Of particular interest is the integration of Windchill's PDMLink product data management tool and ProjectLink collaboration module, said Dan Shoenhair, an engineering director at Ping.

Melding the two functions would make it easier and faster for Ping's engineers, designers, purchasing agents and other employees to share product data, Shoenhair said. Current-

ly, Ping uses separate servers and databases to manage product data and support collaboration among end users.

The integration in Windchill 7.0 "simplifies things and lends more clarity to what you're doing," Shoenhair said. End users should also be able to modify product data and track changes made by other workers more easily than they can now, he added.

PTC's Enterprise Systems Integration module for tying PLM data to other applications is another key new feature in Windchill 7.0, said Gisela Wilson, an analyst at

Windchill 7.0

- Combines PTC's ProjectLink and PDMLink technologies to provide integrated support for collaboration and data management.
- Includes an Enterprise Systems Integration module that supports ties to other products, like SAP applications.

Continued from page 10
most enthusiastic, and basically have a manager who won't sabotage the process," said Amrita Joshi, a vice president who has managed business process outsourcing projects at IndyMac Bank in Pasadena, Calif.

"If anyone . . . wants to blackball the project, it's going to be blackballed. So you have to build consensus," said Paul Fielding, a vice president who heads outsourcing efforts at J.P. Morgan Chase & Co. in New York.

No one is saying that getting internal support is easy. Offshoring of white- and blue-collar jobs to low-wage countries is an emotionally and politically charged topic. Opponents, including laid-off IT workers, have succeeded in getting bills introduced in Congress that would set re-

strictions on visas for foreign workers.

Outside the hotel where the conference was held, a group of about 30 protesters braved the cold to hold "Buy American" signs. Conference attendees were advised to remove their name tags when leaving the building, but the protesters, including John Bauman, a long-time IT worker at a Connecticut utility who said he lost his job because of cutbacks unrelated to offshoring, were peaceful. Bauman, who has been out of work for 15 months, said he hasn't found work because many employers in the state are moving jobs overseas.

"Offshoring will probably never stop," said Bauman, who serves as president of The Organization for the Rights of American Workers Inc. in Meriden, Conn. "Whenever a

company can find a way to save money, they'll do it."

Bauman and other protesters said they're hoping that political lobbying and economic pressure, such as refusing to give their business to companies that outsource offshore, will become effective deterrents.

Potential Consequences

The political and social ramifications of offshoring are in fact making some firms disinclined to move work out of the country, some conference attendees said. Quantifying that is difficult, however.

Pfeiffer, who is now CEO of Ambertek Group, a Darien, Conn.-based consulting company, said offshoring is here to stay. "Despite the political rhetoric . . . this is going to continue to move forward," he

Framingham, Mass.-based research firm IDC.

PTC worked with Tibco Software Inc. to develop connectors between Windchill and SAP's ERP applications. Wilson said the links will support a bidirectional flow of data between the applications, allowing for even wider collaboration on product development and other activities.

For instance, engineering or product design changes could be more easily communicated to supply chain and procurement systems, Shoenhair said. But he noted that Ping has no immediate plans to use the SAP integration functionality.

PTC will build a similar bridge between Windchill and Oracle Corp.'s business applications and then do the same with PeopleSoft Inc.'s software, Heppelmann said. But he didn't disclose a development schedule.

Improved integration is needed to boost the adoption of PLM software, said Bruce Hudson, an analyst at Meta Group Inc. "Integration is an ugly secret of PLM," Hudson said. "It's the one area where PLM vendors do the least due diligence." **Q 44262**

said, adding that managers have to come to grips with changing responsibilities. "You have to think of your job as a global job."

Offshore work doesn't always lead to reductions in a U.S. company's workforce. That has been the experience of J.P. Morgan Chase, according to Fielding. He said the company has recently seen a net increase in IT jobs, but in areas such as architecture design and development, which require higher levels of expertise than the development work it sends offshore. "It's a definite growth" in IT positions overall, he said. **Q 44256**

MORE ONLINE

For additional coverage of outsourcing issues, visit our Web site:

QuickLink a2290
www.computerworld.com

IBM Entices Windows NT Users to Linux

BY SCARLET PRUITT

IBM is readying a program to push its enterprise software running on Linux as an alternative to Microsoft Corp. software running on the soon-to-be-discontinued Windows NT operating system.

The program, announced last week, offers free migration classes and some discounts on software and services for users moving to IBM software running on Linux.

Microsoft will discontinue support and security patches for Windows NT at the end of this year, requiring nearly 2 million customers to develop a migration strategy, IBM said.

IBM's classes will be offered worldwide and will cover migration to the company's hardware and software for needs such as database management, collaboration, security, systems and network management, Web and application serving, and file and print serving.

IBM is also offering discounts on Lotus Domino running on Linux for any IBM eServer, including its zSeries mainframe, to customers moving from Windows applications like Microsoft Exchange.

Special programs are also being offered for migration from Microsoft SQL Server to DB2 Universal Database on Linux and for security and network management migrations.

IBM's timing is good, said James Governor, principal analyst at Bath, Maine-based RedMonk LLC. "Users are definitely looking at Linux to reduce their total cost of ownership around Windows, and at the same time IBM is savvy to the fact that it can make extra money on pieces of software and services," he said.

Microsoft officials weren't available for comment.

Pruitt writes for the IDG News Service.

Health Care Firms Turn to Blades to Meet Privacy Rules

Centralized technology helps secure patient data, eases systems management

BY BOB BREWIN

TWO HEALTH CARE companies are relying on blade computing technology to help them comply with the patient data privacy rules imposed by the federal Health Insurance Portability and Accountability Act (HIPAA).

Beverly Enterprises Inc., a Fort Smith, Ark.-based nursing home operator, last week said it's using Citrix Systems Inc.'s MetaFrame Access Suite software running on blade servers made by Hewlett-Packard Co. to provide its 57,000 nurses, clinicians and other employees with access to clinical and

patient billing applications.

Beverly expects to save millions of dollars in IT costs by consolidating its application infrastructure on about 30 two-processor HP ProLiant blade servers, which are installed at the company's data center in Fort Smith.

The new architecture also provides "a very locked-down environment" that's aimed at meeting HIPAA's privacy requirements, said David Valcik, vice president of technical services at Beverly.

Oklahoma Heart Hospital announced earlier this month that it's using blade systems as part of its HIPAA compliance

strategy. In a project that started early last year, the Oklahoma City-based cardiac care facility installed about 120 PC blade devices made by Austin-based ClearCube Technology Inc., said Jeff Jones, leader of the hospital's MIS team.

Safeguarding Data

Jones said ClearCube's technology lets Oklahoma Heart put "dumb" terminals in patient rooms and connect them to PC blades that are installed in a secure computer room. The setup ensures that a PC containing medical records and other personal data about patients "does not walk out the door," he noted.

In addition, ClearCube's C/Port terminals don't have fans that could spread air-



CLEARCUBE'S C/PORT terminals connect to centralized PC blades.

borne contaminants. That was another key factor in Oklahoma Heart's decision to use the PC blades, according to Jones. He declined to say how much the project cost the hospital, which is also using the terminals in its operating rooms.

Rob Enderle, an analyst at

Enderle Group in San Jose, said the health care industry as a whole appears to be moving toward an IT architecture based on centralized servers and thin clients. The main goals are to ensure the security of patient records and simplify systems management, Enderle said.

Valcik wouldn't disclose cost or return-on-investment figures for Beverly's Citrix and blade server installation. But he said the company would have had to buy new PCs and servers for its 400 or so elder care facilities if it hadn't invested in the blade technology. The centralized system has also reduced the time required to run patient reports from six hours to 15 minutes, he noted.

In addition, Beverly used the system to remotely provision Citrix's software during the installation process, said Don Griffin, the health care company's director of infrastructure research and development. He added that software installations were done by "a flip of a switch" as Beverly rolled out Citrix's technology to about four facilities and 150 to 200 end users per week after launching a pilot project early last year.

At Oklahoma Heart, ClearCube's terminals provide doctors with easy access to electronic medical records, pharmacy systems and other applications, Jones said. He added that the terminals can also be used to call up images such as X-rays. **44265**

Cisco Tailors Switches for Metro Ethernet Networks

Devices include quality-of-service support, redundant power supplies

BY MATT HAMBLETON

Cisco Systems Inc. last week announced a pair of switches that support Ethernet-based metropolitan-area networks and are aimed at network service providers looking to offer new capabilities to their business customers.

The Catalyst 3750 Metro Series switches have more intelligence than Cisco's existing devices and include the ability to provide quality-of-service guarantees to users, said Wesley Mukai, a product manager at the vendor. That means the switches can do things such as segment data traffic and give voice-over-IP transmissions higher priority than data transfers, he added.

The new products, which

are specialized versions of Cisco's enterprise-class Catalyst 3750 switch line, also include redundant power supplies. Service providers can buy the switches and install them at their customers' facilities, Mukai said.

Song Networks Holding AB, a Stockholm-based company that provides voice, data and Internet services to business customers in Scandinavian countries, is testing a 3750 Metro switch. Based on several days of tests, the switch "would fit in very well with our MPLS core network," said Song senior engineer Anders Thorzen, referring to Multiprotocol Label Switching technology.

Thorzen said Song is building metro Ethernet LANs and wants to support Internet services as well as virtual private networks based on either IP or Ethernet within a single switch, which would be possible with the 3750 Metro.

But cost could be an issue,

said Thorzen, who said he did not know the price of the new switch until he started testing it. "The price is quite high, so I can't say if we'd buy them," he said, noting that Song would need to purchase the basic box as well as an advanced IP features license for a total cost of nearly \$20,000 per switch. "I'll

PRODUCT DETAILS

Catalyst 3750 Metro Series

■ Includes two rack-mounted models, one that runs on AC power and one that's DC-powered

■ Offers 24 10/100 Ethernet ports, plus two small ports for Gigabit Ethernet access and two more for enhanced network services

■ Supports maximum forwarding bandwidth of 32Gb/sec. in Layer 2 and 3 switching fabrics

■ PRICING: Starts at \$6,995 for the AC model and \$7,495 for the DC version

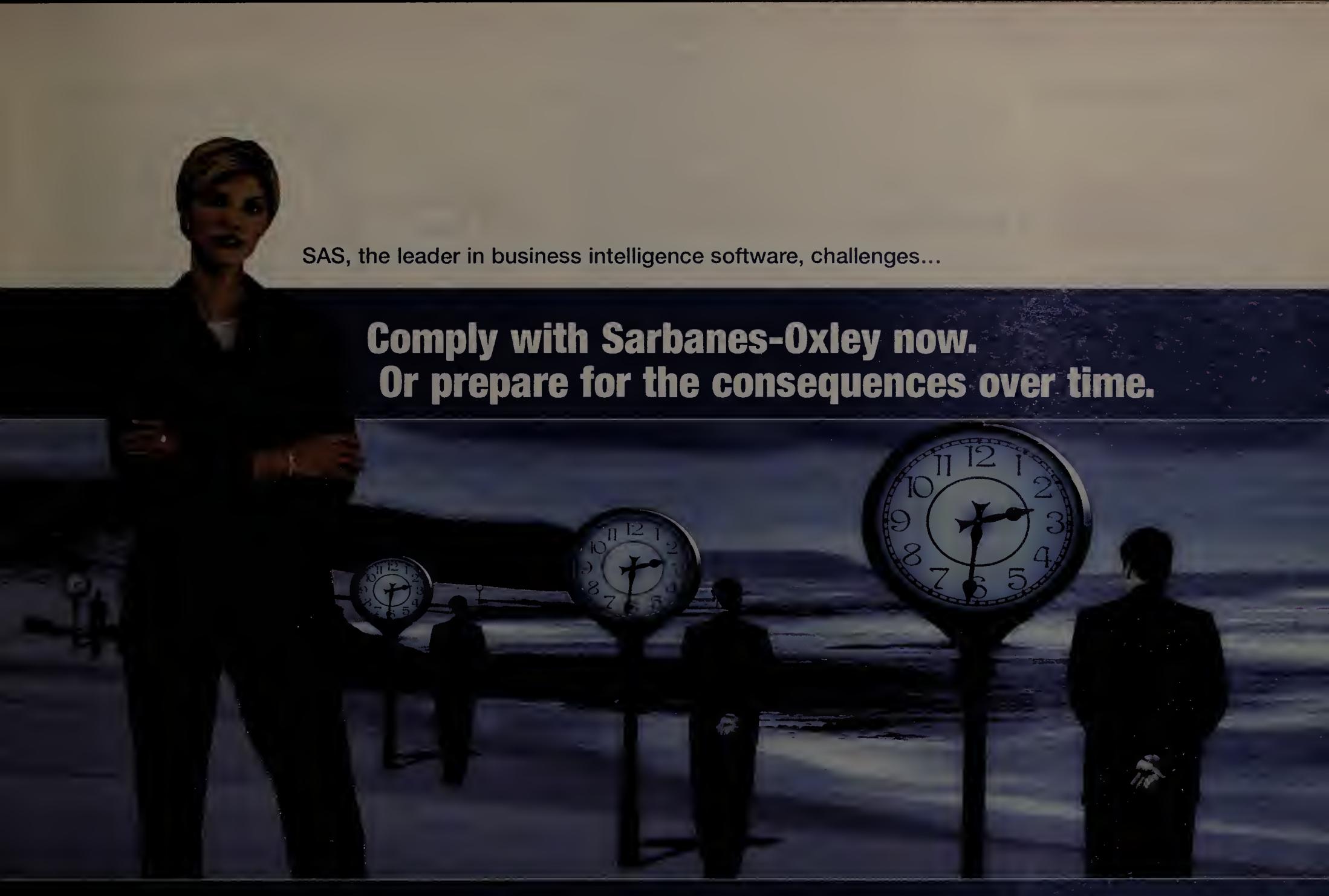
■ AVAILABILITY: Q1 for retail by month's end

have to talk to the Cisco sales rep about possibly getting a lower price," Thorzen said.

Cisco already dominates the metro Ethernet switching market "by far," said IDC analyst Sterling Perrin, although he declined to disclose market share data. But the 3750 Metro switches should further enhance Cisco's competitive standing against rivals like Nortel Networks Ltd., Foundry Networks Inc. and Extreme Networks Inc., Perrin said.

The new line adds more robust quality-of-service and reliability features to the mainstream Catalyst 3750 switches and is being offered as part of Cisco's strategy to sell more products to service providers, according to Perrin.

Having first emerged in 2001, metro Ethernet technology has caught on mainly because it lets customers buy VoIP and other data services at a lower cost than leasing private lines, he said. IDC predicts that worldwide sales of metro Ethernet equipment will exceed \$2.4 billion this year, up from about \$1.4 billion in 2003. **44265**



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BRIEFS

PeopleSoft Drops Third-Party Tools

PeopleSoft Inc. said it's switching from Informatica Corp. to Ascential Software Corp. as the supplier of the data extract, transform and load tools bundled with its analytic applications. But the change to Ascential's software will be transparent to users, PeopleSoft added. It said existing customers can continue to use the tools developed by Informatica.

CA Reports Profit On Increased Sales

Computer Associates International Inc. reported a \$22 million profit for its third quarter, which ended Dec. 31. Revenue rose 12% year over year, and CEO Sanjay Kumar said he is "encouraged by signs that technology spending is gradually increasing."

BY THE NUMBERS	
REVENUE	PROFIT
Q3 FY04	\$844M
Q3 FY03	\$754M
	(\$44M)

PalmOne Lays Off 12% of Its Workers

PalmOne Inc. announced a layoff of about 100 employees, reducing its workforce by 12% and leaving the Milpitas, Calif.-based maker of handheld devices with a total of 740 workers. Two engineering teams that develop wireless and handheld products bore the brunt of the job cuts after they were consolidated into a single group, according to PalmOne.

Short Takes

SAP AG said revenue fell by 3% in last year's fourth quarter, as forecast. But the company added that it expects software license sales to increase by about 10% this year. . . . EMC CORP. reported a fourth-quarter profit of \$220 million and said the U.S. DEPARTMENT OF DEFENSE plans to buy \$44.3 million worth of its storage hardware and software.

Continued from page 1

LinuxWorld

won't offer any such program because it doesn't believe indemnification is needed (see story below).

Users were less certain.

Rudy Ebisch, assistant technical support director for core systems in the IT division of Canon USA Inc. in Lake Success, N.Y., said legal concerns are definitely a factor as his company eyes Linux as a possible alternative in a migration from multiple operating systems.

"That's the No. 1 question my general manager asked when I was coming here," Ebisch said. So far, Canon is trying out Linux only for projects such as experiments with network monitoring tools. But as major vendors, including Hewlett-Packard Co., Novell Inc. and Oracle Corp., adopt Linux strategies, Canon's options continue to expand.

"It makes it legitimate," Ebisch said. "I'm not taking the risk I would have a year ago" by moving to Linux.

Richard Teasdale, a Unix administrator at a U.S.-based insurance company that he declined to name, said indemnification programs "make it more palatable" to consider Linux. But he said that's just one of many issues that must be considered.

"I don't think it's a make-or-break issue," Teasdale said. "We're looking at it. We're under tremendous pressure to reduce costs, so we're looking at every way . . . and Linux is one of them."

Conservative Pace

Colt Jackson, a systems engineer at CareFirst Inc., an Owings Mills, Md.-based health insurance company, said IT planning in the insurance industry moves at a conservative pace. As a result, indemnification programs are helpful but won't likely trigger a mass migration.

Health insurance companies "want to have a track record for technologies they put in place, but they don't want to

create that track record themselves," Jackson said. "They definitely want to limit risks."

Another user, an enterprise architect at an East Coast financial services company who asked to remain anonymous, said indemnification is indeed meaningful.

"It actually is something we were really concerned about. We were in the process of putting together a position paper on Linux when the [SCO] lawsuit hit, and we put it on hold," he said. "But to have companies step to the plate and say they're having indemnification programs meant they were acknowledging and dealing with the problem."

Unanswered Questions

Questions remain, however. "We're not coming away from this with any big reasons not to [move to Linux]," said the enterprise architect. But because it will likely take years

Defiant IBM Calls Linux Indemnification Unnecessary

Open-source OS use continues to grow, despite legal threats by SCO

BY TODD R. WEISS
NEW YORK

While Novell, Sun Microsystems, Hewlett-Packard and Red Hat are all offering indemnification programs to protect customers from possible legal threats stemming from their use of Linux, IBM has quietly remained on the sidelines.

But on the opening day of the LinuxWorld Conference & Expo here last week, IBM publicly weighed in on the issue, arguing that there's no need for it to indemnify its growing pool of Linux customers.

IBM's rationale: The ongoing \$3 billion lawsuit filed against it last March by The SCO Group is baseless.

"Our position hasn't changed," said Jim Stallings,

[Whether there's a legal liability problem] is the No. 1 question my general manager asked when I was coming here.

RUDY EBISCH, CANON USA

for the legal issues to be resolved, "it's important for the companies that believe in their [Linux] products to back them up with indemnification," he added.

Alex Drought, head of technology for movie editing workers at Blue Sky Studios Inc. in White Plains, N.Y., a unit of Fox Filmed Entertainment, said indemnification means little in his business, since film studios can quickly turn to other operating systems like Apple Computer Inc.'s Mac OS X in the

event of legal problems such as the SCO lawsuit.

That's different from the situation at financial services and insurance companies, where a quick change isn't possible because of the depth of their IT integration and architectures, Drought said.

"They cannot turn on a dime if things change overnight," he said. "They would really be in a tough position."

Red Hat Inc. last week said it will offer a plan that it calls the Open Source Assurance Program to protect all existing and future Red Hat Enterprise Linux customers from legal challenges as long as they're using the software [QuickLink 44168].

Red Hat's move came on the heels of a decision a week earlier by Novell to indemnify SUSE Linux AG customers against possible legal action from SCO [QuickLink 44020].

Q 44259

minds by the thousands" and don't feel threatened by SCO's legal challenge.

Matt Plociak, an analyst at Progressive Strategies Inc. in New York, said IBM's argument makes sense.

"To me, if you offer indemnification, you're saying there may be a problem," he said. "IBM is saying there is no problem and [that they're] going to prove that in court. I think that's a reasonable strategy, and obviously their customers are confident with that" because they haven't stopped buying and using Linux.

Al Gillen, an analyst at Framingham, Mass.-based IDC, said that while IBM continues to pass on indemnification, the company has donated money to the legal defense fund created by the Beaverton, Ore.-based OSDL. "I don't think there's any real need to provide any indemnification until they have a customer who's in some form of litigation" in connection with SCO's claims, Gillen said. "Then the pressure would increase for them to do something." Q 44260



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Stratus CEO Promises Legacy Upgrade

BY PATRICK THIBODEAU

Stratus Technologies International, a Maynard, Mass.-based maker of fault-tolerant

servers, last week reported a \$3.6 million loss and \$64.6 million in revenue for its third quarter, which ended Nov. 23. It

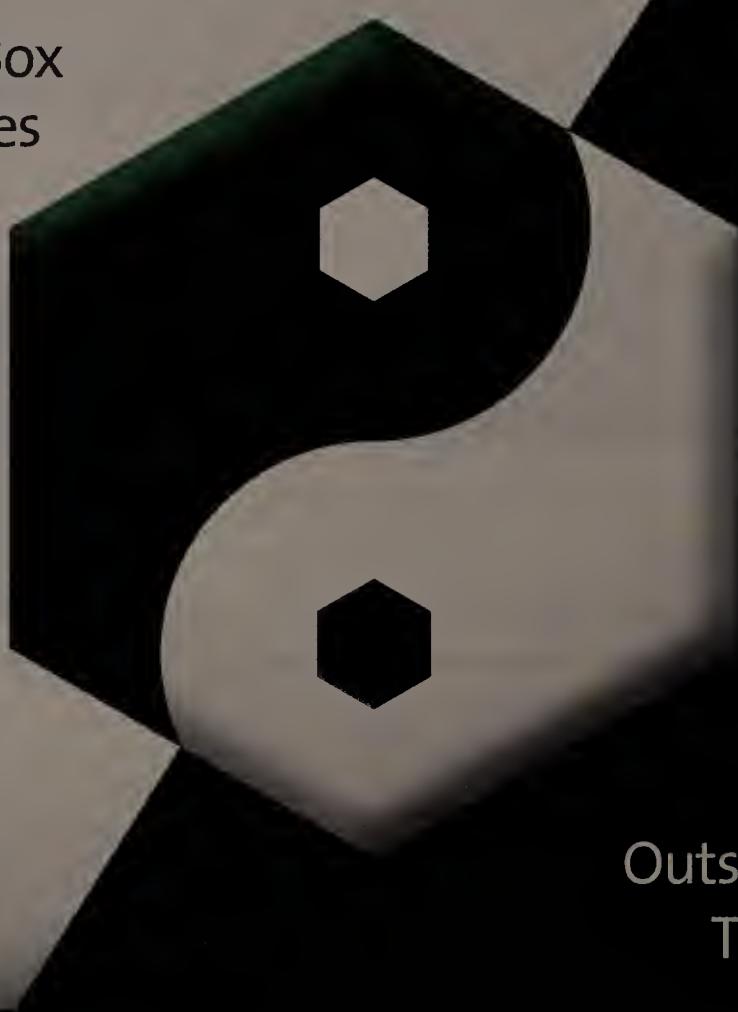
was the first public earnings report in five years by Stratus, which was split in two in 1999 and then reunited last year.

David Laurello, Stratus' president and CEO, spoke with Computerworld prior to the release of the third-quarter numbers.

Stratus is a private company. Why are you disclosing your fi-

nancial results? Late last calendar year, we completed a \$170 million bond offering. Bonds are traded in a public market, and you follow a lot of the same financial disclosure rules as a public company.

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Now more than ever you need to control costs. Software solutions implemented straight out of the box may appear cheaper and faster to implement. The problem is, with rigid applications dictating how you run your business, your teams risk being trapped inside the box.

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What's the future of your Continuum servers? We continue to sell our legacy line. And the reason we do is because a lot of our applications are very "sticky" to the platform.

In the late 1980s and 1990s, we sold our product to customers that ran their most mission-critical applications on our box. And once it's up and running, our customers tend not to want to change it. If you make an 800 call in the United States, it goes through a Stratus box.



Will your legacy users be facing an end-of-life scenario at some point? We continue to upgrade the Continuum platform. For our VOS customers, we're actually taking the operating system and migrating it on to the ftServer, our Windows-based server platform.

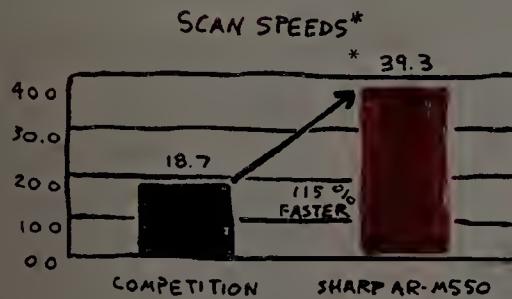
How important is the ftServer to Stratus? That's where all our new business is coming from. We started shipping it in June 2001, and since then we've sold it to over 850 new customers. If you look at the five-year period before we introduced ftServer, we were lucky if we had 20 [new] customers.

What are you doing about Linux? In June, our plan is to release a Linux [offering] on ftServer. This will primarily be focused on the telco marketplace. In 1998, telco was 50% of our business. Now it's about 25%. With this new Linux ftServer, we're really excited about driving some growth in the telco area. **Q 44223**

MORE ONLINE

Read the full interview on our Web site:

 **QuickLink 44224**
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MARYFRAN JOHNSON

Unspeakable Candor

AFTER SPEAKING ON A PANEL at a retail conference in New York recently, the CEO of Sears caught all kinds of hell for what amounts to unspeakable candor about offshore outsourcing [QuickLink 44157].

Not only did Alan Lacy talk all too frankly about the financial attractions of going offshore, but he

also doubled his trouble by unfavorably comparing the intellect and drive of American workers with their overseas counterparts. "There are four or five times as many smart, driven people in China than there are in the U.S.," he said.

What the chief executive meant to say, his PR troubleshooters scrambled to explain in their apology afterward, was that countries with populations several times the size of the U.S. naturally have much greater numbers of educated and motivated workers. And like so many other U.S. companies looking to reduce IT costs, Sears is looking to outsource part of its infrastructure this year and is considering all of its options.

What the Sears CEO may have learned last week is that candid, open discussion about offshore outsourcing is the new corporate taboo. Nothing will be more politically incorrect this year than expressing interest in offshoring.

The topic has become a hot button on the national political stage, where the Democratic presidential hopefuls have taken up the cause of unemployed IT workers displaced by outsourcing contracts. Legislation is being proposed in Indiana, Michigan and New Jersey to block state IT contracts from using foreign labor.

Last week, *The Wall Street Journal* published a story about an internal IBM memo that described plans to shift several thousand programming jobs overseas. The article included embarrassing details about a suggested HR script to be used when informing employees that they were out of a



MARYFRAN JOHNSON is editor in chief of *Computerworld*. You can contact her at maryfran.johnson@computerworld.com.

job. And an Associated Press story about an outsourcing conference in New York reported that a consultant from McKinsey & Co. barred reporters from covering his talk, which was called "Is Offshore Outsourcing Unpatriotic?" Some Indian software companies that once publicized their new U.S. customers no longer do so, for fear of adverse publicity.

What is often overlooked in the emotional, angry reactions to offshore outsourcing is how small a percentage it really occupies in the huge global outsourcing market. Analyst firm Datamonitor just released figures showing that offshore contract work made up only 1.4% of the \$119 billion spent on IT services deals in 2003.

Yet despite the chill descending on

public discussion of offshoring, the trend continues to accelerate. Globalization is well under way — and largely enabled by IT, in fact.

The list of big-name companies with established or planned offshore outsourcing projects includes IBM, Hewlett-Packard, Oracle, Time Warner, Disney, Siebel, Microsoft, Yahoo, MasterCard, Google, Accenture, CNN, Target, Bank of America and Intel. More than eight out of 10 software companies will be exporting work offshore this year or next, according to a recent study by research firm Sand Hill Group.

Successful offshore projects can save companies money, but the hidden costs and management pitfalls range from underestimating transition costs and additional travel expenses to security concerns, rising overseas labor costs and IT governance problems.

What troubles me most about the political backlash and the growing self-censorship around this topic is the inevitable stifling effect on honest information exchange. At a time when more companies are gaining experience — both good and bad — with offshore firms and outsourcing contracts, fewer companies are going to be willing to share those experiences.

To me, that's far more unspeakable than the foot-in-mouth candor of the Sears CEO. **44225**



PIMM FOX

Open-Source Model for Outsourcing

IT DOESN'T TAKE an MBA to know that you can save money paying a salary of \$20,000 for IT skills in India vs. \$80,000 in Indianapolis. That's why the outsourcing movement now encompasses software creation, not just support and maintenance.

According to a Meta Group study, 41% of all new application development, whether involving Cobol, .Net, C# or C++, is happening offshore. And the Fortune 100 are increasingly dependent on distributed talent. But using offshore programmers requires sophisticated communication and collaboration technology. Without it, the cost of managing outsourced application development can easily strip away any savings you get from salaries.

Unfortunately, such technology is still in its infancy. But there is one tool that suggests how offshore development can be managed: the SourceForge.net Web site. Run by Fremont, Calif.-based VA Software Inc., the site hosts thousands of projects for free, serving as an open-source development platform for project teams as well as a real-time monitor for executives and partners.

Richard Christopher, delivery manager at Allstream Corp. in Calgary, Alberta, uses this repository of open source code and applications as part of his effort to manage integration work for clients in the oil and gas industries. "My role entails ensuring an IT project has the appropriate resources and is delivered on time and on budget," Christopher says.

Using SourceForge.net, Christopher's team manages code, content and process. The tool also handles document management and version control. From his clients' perspective, it's easy to perform acceptance testing, log defects and bugs, and assign priorities tagged with notes. "The nice thing is a



Richard Christopher



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January 2004 • USA

Browser

SMART SOLUTIONS FOR YOUR TECHNOLOGY NEEDS

Seeing Your Way Through Security Patch Management

Page 10

Also Inside:
Mobile Security
IT Asset Management
Windows Graphics
Consolidation Solutions

CHECK OUT
AND YOU COULD WIN

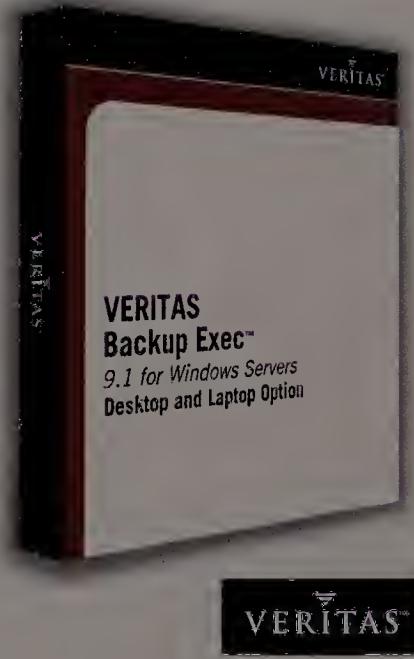
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Maximum Mobile Security

Even with today's security concerns, hunkering down behind your firewall is hardly the way forward. Not when you can be taking advantage of all the opportunities the open road has to offer. Whether you're looking for mobile security and backup software, or hardware solutions to thwart even the most determined criminal, Softchoice has what you need to conduct business securely no matter where you are. So what are you waiting for? Get out there and share!



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Protecting critical data on users' machines is a challenge for any IT organization. Now available with the new version of VERITAS Backup Exec™ 9.1 for Windows Servers, is the introduction of the Desktop and Laptop Option which delivers effective, high-performance data protection to desktops and laptops for continuous backup protection whether in the office or on the road. By automatically copying user data to existing network share, this new option enables users to restore their own files and maintain synchronization between multiple desktops and laptops. The Desktop and Laptop Option easily integrates into existing IT infrastructure and policies, helping to lower the total cost of ownership. For more information on this new option, go to www.softchoice.com/browser

Protect and Charge ALL your Mobile Devices

The NEW APC TravelPower Case is designed to both protect and power your notebook computer, mobile phone AND handheld - all at the same time! The integrated power system helps reduce weight and cord clutter since bulky transformer blocks and power adapters are no longer necessary. TPC1000S \$100.00



Did You Know? Going Mobile

- By 2006, 40% of all workers will perform a significant part of their job outside of the office.

*U.S. Census Bureau

- 250,000 mobile devices are left in airports every year.

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Are you worrying about vulnerable remote laptops outside your perimeter? Are you concerned about the next time a client unknowingly downloads a virus and then logs back in? Put these fears to rest, once and for all.

The beauty of Symantec's new integrated client security solution is that it delivers protection for network and remote clients alike - all managed from a single console. Symantec™ Client Security is the first integrated, easily managed protection for your client workstations, laptops and remote users. It offers industry leading security technologies -in one integrated, manageable solution.

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KEEP IT SAFE

5

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Inspect the Uninspected

6

Analyzing your environment's attributes and activity can help you build a clearer, more productive IT future. Having easy access to inventory data on the software and hardware running on your network, along with detailed reports on bandwidth and application usage are keys to successful and cost-efficient IT decisions. These solutions can help you reduce IT expenditures, enhance security and performance, and make change management a veritable walk in the park.

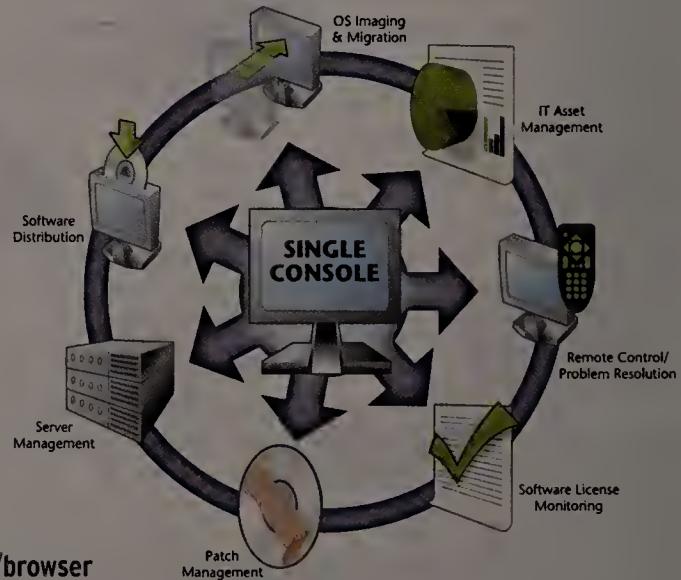
Control Your Machines

LANDesk® Management Suite 8 enables IT professionals to automate systems management tasks and proactively control desktops, servers and mobile devices — all from a single console.

- Automatically discover technology assets
- Migrate users to new operating systems
- Decrease software licensing costs
- Keep up with security updates
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To learn more about Management Suite 8, visit www.softchoice.com/browser



Did You Know? Savings Potential

Implementing IT life cycle asset management will create a reduction in costs of up to 30% per asset during the first year.

Continuing will yield an additional reduction of 5% to 10% per asset through 2006.

*Source: Gartner

Complete View of IT Assets

Express Software Manager from Express Metrix provides a comprehensive view of IT assets and lets you understand what you own, and who is using it. Quickly inventory and control IT assets from a central location, and use the powerful reporting engine to see inventory data together with software usage statistics in over 65 pre-configured reports.



Express
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- Manage IT expenditures
- Harvest unused technology
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LiveInventory

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NETWORK INSTRUMENTS



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7



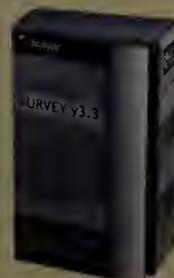
Did You Know?
Preparation Pays

Enterprises that fail to integrate usage and inventory data to manage their software assets will overbuy licenses for 60% of their portfolio and be non-compliant on 30% of their software. *Source: Gartner

Drill Down on Usage

Survey™, by Scalable Software, will gather inventory and usage metrics on hardware, software, thin clients and printers throughout a distributed network. Survey allows companies to understand the value being delivered by their IT expenditures by understanding ACTUAL asset usage, not just when it is open or turned on.

CD ROM \$96.00



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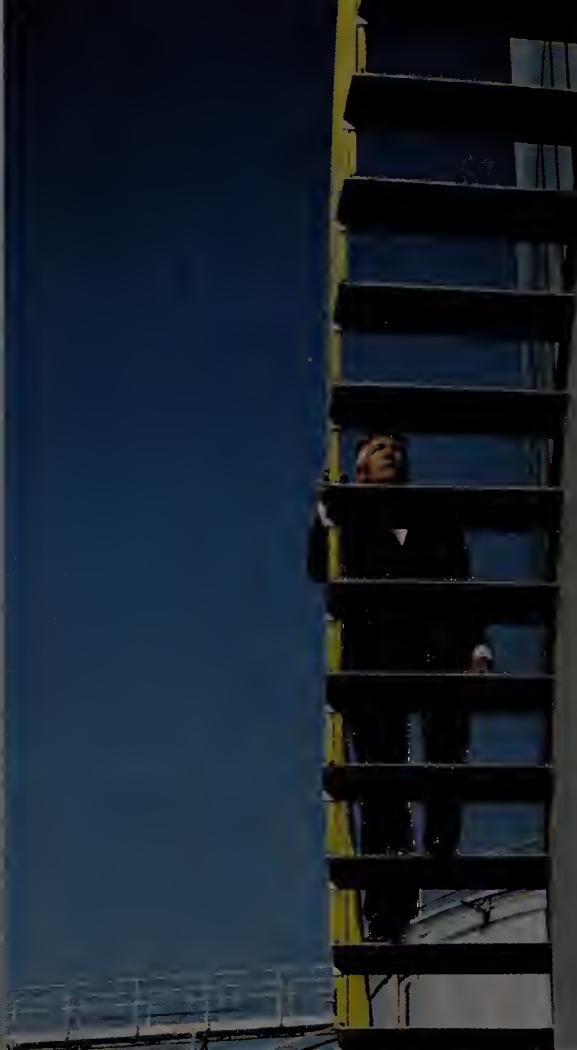




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- Utilize scripts to automate repetitive tasks such as colour conversion to increase productivity.
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The Adobe® Creative Suite is an integrated design environment that combines full, new versions of Adobe's latest creative tools with innovative file-management features, a smooth PDF workflow, and comprehensive design resources. For a full listing, go to www.softchoice.com/browser CD ROM \$1,230.00

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Get professional-level functionality and control for every aspect of web development with Macromedia Studio MX 2004 - a complete suite of industry-leading web tools that includes Dreamweaver, Flash, Fireworks, Coldfusion and Freehand. Take advantage of a consistent user interface and seamless integration across applications to streamline your design and development workflow.

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Deadlines Killing You?

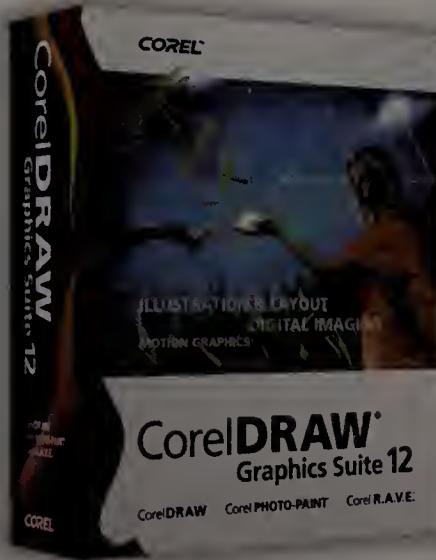
The Zboard™ customized keyboard for Adobe® Photoshop® has 139 labeled shortcut commands right on the keys! Now you can work like a pro to quickly and easily access time saving commands. No more memorizing! There is so much more to Zboard™ - check out our other keyboards for Flash, Dreamweaver, 3ds max. Keyboard Panel \$26.00



 Zboard™

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CorelDRAW® Graphics Suite 12 is here. With integrated applications for vector drawing, page layout, digital imaging and motion graphics all in one box, this suite offers value that is second to none. With new smart design tools, it's now easier to produce more creative and accurate objects - giving you a more powerful Windows® graphics suite. Discover advanced features that increase productivity, such as real-time visual feedback. Keep your workflow smooth with industry-standard file compatibility, including SVG, AutoCAD®, HPGL, Adobe® Photoshop®, Adobe® Illustrator®, PDF, and new Microsoft® Office export.


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The HP Designjet 120 Series Printers provide small agencies, graphic designers, and production staffs an affordable solution that can dramatically improve production workflows throughout the entire creative process. Whether designs call for postcard-size images, full color pages, or banner-style communication, this printer delivers professional quality images. C7791A \$1,264.00



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Did You Know: Graphics History

- In 1963 the Mouse was invented by Doug Englebart of SRI
- GIF (CompuServe Image Exchange Format) was developed in 1987


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OKI® Color Series printers bring affordable Digital LED Color printing to a cost-conscious marketplace. The purchase price is highly competitive as well as the cost per page and total cost of ownership. OKI® Single Pass Color Digital LED Technology keeps these printers running strong - even with long printing jobs in both color and monochrome.



Feature: Effective Patch Management

10

Recent security outbreaks like SoBig.F and W32.Blaster have changed the way people think about patch management. It's not surprising when you consider that in the majority of cases, having a recent patch could have helped avoid these disasters altogether. So why not take control? With solutions to help you stay aware of the latest updates, assess your vulnerabilities, and then deploy security patches to where they're needed, you'll never have to rely on hindsight again!

Drill down into more information at:
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Patch Management Made Easy with Microsoft Software Update Services

Software Update Services (SUS) enables administrators to quickly and reliably deploy the latest critical updates, security updates and Windows service packs (SPs) to Windows 2000 and Windows Server 2003-based servers and desktops running Windows 2000 Professional or Windows XP Professional. SUS is a no-charge add-in component for Windows Server available for download direct from Microsoft.



Did You Know: Time to Act...

- The 2002 Sarbanes-Oxley Act requires that all PCs belonging to public corporations run supported operating systems and software that is current with security patches.
- Nearly 95% of security breaches exploit vulnerabilities for which a countermeasure exists. *CERT Coordination Center



Systems Management Server

Systems Management Server 2003 (SMS) provides a comprehensive solution for change and configuration management for the Microsoft platform, enabling organizations to provide relevant software and updates to users quickly and cost-effectively. SMS 2003 delivers the necessary tools to enable enterprises to stay aware of the latest updates, identify software vulnerabilities, and then quickly and easily retrieve and deploy the update in an accurate, verifiable and controlled manner.

Microsoft

Proactive Patch Management

St. Bernard Software proudly presents UpdateEXPERT, a software patch management tool that scans your network for missing hotfixes, validates your installations, and then installs updates to all servers and workstations remotely without a required client agent. UpdateEXPERT features a comprehensive database of patches that are thoroughly researched and tested for deployment and interdependencies with other updates by St. Bernard Software's patch experts. St. Bernard Software has been at the cutting edge of patch management since early 2000.

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Symantec DeepSight Alert Services provides personalized vulnerability and malicious code alerts to bridge the gap between awareness and action. The service delivers notification of vulnerabilities as they are identified, providing timely and actionable information to help users distribute patches and updates immediately. Symantec analysts monitor potential threats across more than 18,000 distinct product versions and information from more than 150 authoritative sources. They provide a detailed analysis in each alert and update, describing its severity and potential impact, technical makeup, the systems that might be affected, available patches or workarounds, and comprehensive mitigation strategies. For a free 30 day trial of the service, go to www.softchoice.com/browser Sub 1Y 01-02 Usr \$808.00

Symantec™ DeepSight™ Alert Services

A Holistic Approach to Preventing Blended Threats

Symantec Enterprise Security Solutions incorporate the latest technology in addressing blended threats such as Sobig and Blaster. Through integrated protection and response capabilities, customers were able to prevent Blaster and Sobig from ever infecting their systems. With Symantec DeepSight Alert Services, administrators receive early warning of new vulnerabilities. Symantec Gateway Security and Symantec Client Security prevent networked systems, as well as remote offices and telecommuters, from being infected. Viruses and worms are blocked by default in these integrated, best-of-breed security solutions. For a white paper on this comprehensive approach, go to: www.softchoice.com/browser



symantec™

The Most Affordable Way to Confront Patches

Softchoice's ATLAS (Advanced Tracking of Licenses And Software) technology enables organizations to electronically distribute, deploy, and manage almost any type of software - including software patches! With ATLAS you'll reduce your software headaches and management costs, and better serve your user community. Most importantly, ATLAS is complementary tool-set offered exclusively by Softchoice to our customers - how's that for TCO!



Managing your digital inventory.

Take Control with IBM

IBM Tivoli Configuration Manager can help you gain total control over your enterprise software and hardware. Its software distribution module can give you the ability to rapidly and efficiently deploy complex mission-critical applications to multiple locations from a central point. After systems have been deployed, the inventory module lets you automatically scan for and collect hardware and software configuration information from computer systems across your enterprise.



Better Patch Management with Wyse™ Alcatraz™

As the summer 2003 worm attacks showed, not all virus problems can be solved by anti-virus software. Hackers are writing malicious code that can only be prevented by an operating system patch. Patch management is now as critical to an enterprise security plan as keeping virus-definition files up to date.

12

The Ultimate in PC Control

Wyse™ Alcatraz™ is a cost-effective way to plug holes in your security plan. This easy to use software manages PC's with any degree of centralized control and user freedom for maximum employee and IT productivity. With Alcatraz, PCs can be controlled along a sliding spectrum of settings. Users can have full functionality, or a PC can be turned instantly into a fixed-function device such as a kiosk or Windows terminal. Between the two extremes, administrators can grant or restrict access to browsers, peripherals, storage devices, applications and Windows settings. Standard License \$62.00

Until now, keeping your PCs properly patched was a very time-consuming, expensive, and onerous task.



WYSE
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When a new worm or virus is spreading, you're in a desperate race against the clock. Now, for a great per-seat price, Alcatraz brings you an easy way to identify holes - and increase your peace of mind.

Solve these Patch Management Challenges

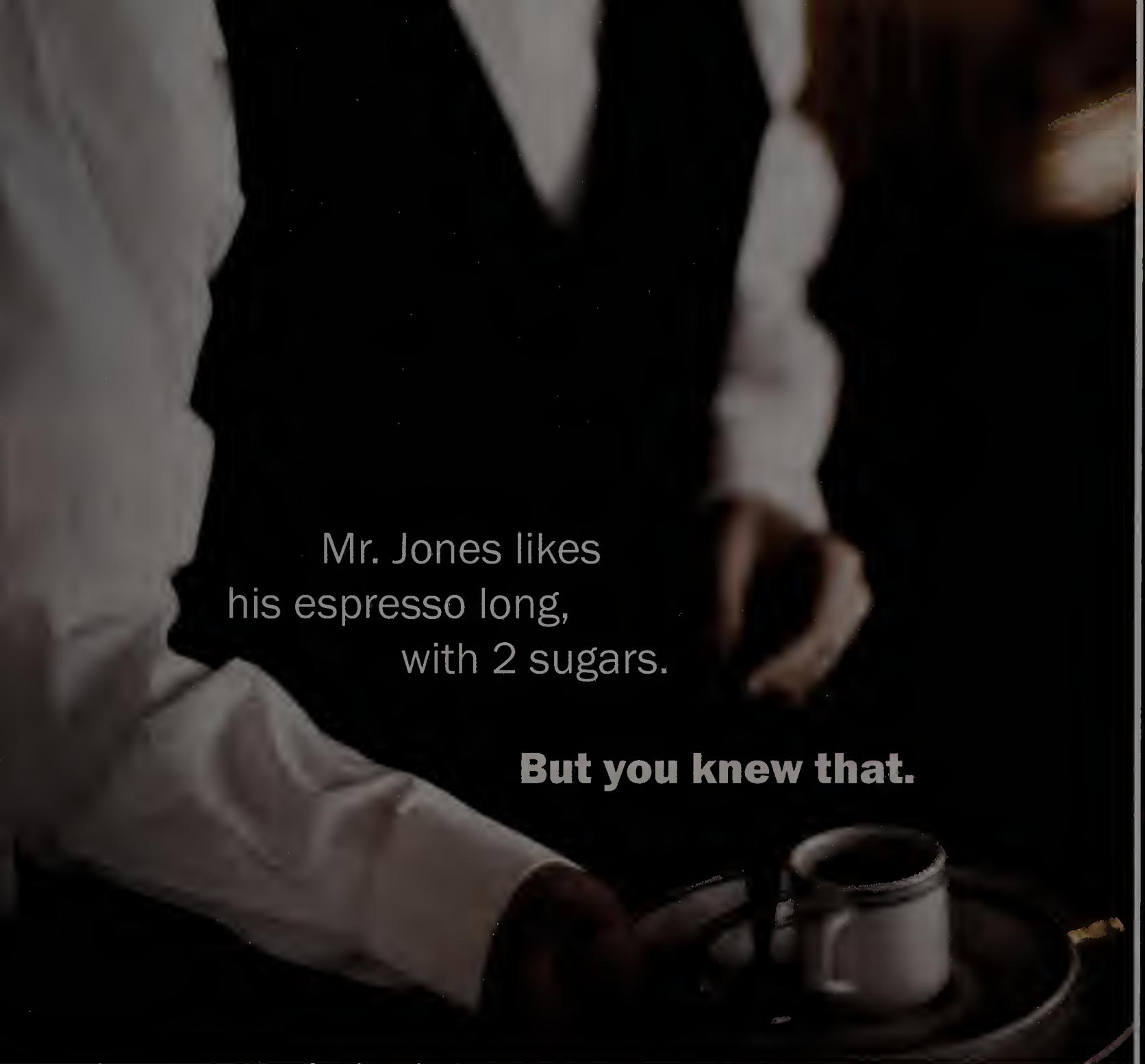
- Relying on users to do manual updates from emailed instructions
- Mixed OS environment with different patches needed. Some support automatic updates, others don't.
- Not all users have automatic update turned on, and nothing prevents them from turning it off.
- Viruses are spreading by pretending to be Microsoft patches.
- Your automatic update can't pick and choose the updates you want. Some updates break applications; others make systems unstable.
- Mass automatic updates are a bandwidth nightmare.



Warning: Big Threat

Without effective patch management, your chances of getting hit with a virus or worm are considerably higher

For Example: Alcatraz easily finds all of the "Internet Explorer 6.0 users" from a central console and then can remotely install Service Pack 1 to all of them. To protect bandwidth, it sends an update file to a remote location where it can be locally served up to the PC's.



Mr. Jones likes
his espresso long,
with 2 sugars.

But you knew that.

Keeping customers like Mr. Jones happy is all about knowing what they want, when they want it. Simple, right? The only trouble is that until recently, the technology needed to track customer requests, manage support issues and provide consistent, efficient service has been the domain of large enterprises with plenty of bandwidth and deep, deep pockets.

Not so anymore. Through the combined expertise of Microsoft and HP, establishing an effective CRM solution is now simpler and more cost-effective than ever before.

Microsoft

With HP's tested hardware configurations and familiar, industry-standard user interface providing a foundation, the new Microsoft CRM solution is an easy way for any sized organization to empower individuals, teams, and management to have more productive and successful relationships with customers, just like Mr. Jones. And if he's happy, you're happy.

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Microsoft & HP: A Winning Combination



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One of the easiest ways to reduce overhead costs is to eliminate redundancy. That means consolidating resources, finding innovative ways to extend the use of existing technology and identifying new, multi-purpose tools to help you free up elbow room, save money or both. When it comes to matching your IT resources with real business needs, it just doesn't get any better than this.

Serve More With Less

Simple is better. And doing more with less doesn't have to come at the expense of operational excellence. Through Microsoft Server consolidation, you have the opportunity to reduce the complexity of platforms and improve the overall manageability of your IT infrastructure. The benefit to you? Higher availability, increased flexibility and better alignment between IT resources and business goals. Since when did doing more with less look so good?

The key to consolidating your current environment is to have a standard process for planning, designing, deploying, and managing the project.

For more information on how you can serve more with less, visit www.softchoice.com/browser

Microsoft



Did You Know? Server Consolidation

- Reduces hardware and software purchases
- Decreases time spent managing infrastructure
- Lessens infrastructure vulnerability
- Cuts the need for power, cooling and space

Reduce Your Storage Costs



VERITAS StorageCentral™ is a powerful storage resource management solution that will help you reclaim storage & block unwanted files, reducing backup and disk costs. You'll also reduce network traffic by eliminating duplicate, stale, and inappropriate files from regular backups. And finally, with less data backed up, you'll use fewer backup tapes, and take less time to restore.

VERITAS



Is Your Printing Cost-effective?

Using that outdated printer may be costing you money. Although it still works fine, it's probably not working to save you money or improve productivity. HP's commitment to innovative Printing & Imaging products has resulted in the introduction of efficient printing devices which have increased productivity and lowered the users' operating costs.



SMART MONEY

In fact, analysts* agree that companies should scrutinize the total cost of printing, which includes not just the printer's purchase price, but ongoing costs of supplies, power and servicing. They cite evaluating new technologies, and putting the right number of devices in the right location as important strategies to boost productivity and realize significant savings.

To learn more about what Softchoice & HP can do to help you lower your printer costs, visit www.softchoice.com/browser

*Gartner Research Note

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15

Greater Control Over Storage Costs

With CA's New BrightStor® Storage Resource Manager 6.4 you'll maximize utilization of current storage capacity by monitoring, analyzing and automating networked storage resources - all from a central location, across distributed and mainframe environments.



Computer Associates®

Saving Lots with Multifunction

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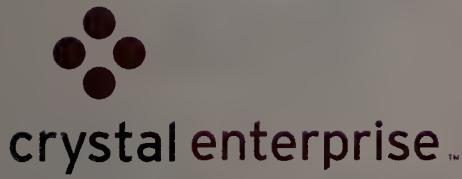


Business Intelligence



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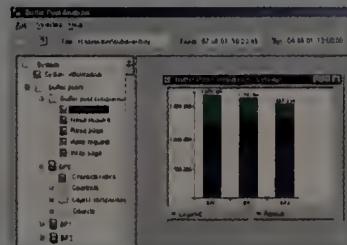


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High Tech Horoscopes



Capricorn

Dec. 22-Jan. 19



Your hopes of using the space saving and ultra-thin **HP ScanJet 4670 See-thru Vertical Scanner** as a miniature tanning bed are dashed when you realize that you are not, in fact, miniature.

Aquarius

Jan. 20-Feb. 18



You'll wish you'd had your **HP Photosmart 935xi digital camera** handy, when the Eagles reunite one last time to perform a 15 minute concert in your basement rec-room. The stars advise you stock up on additional Smart Digital cards for the event.



Pisces

Feb. 19-Mar. 20



The **HP StorageWorks NAS 2000s** gives your office better storage management and data protection, which explains your CIO's anger when he notices you took it home with you. On the upside, you'll have more spare time to pursue important things, like finding a new source of income.

Aries

Mar. 21-Apr. 19



The heightened performance of HP's next generation **Tablet PC TC1100** will whip you into a frenzy with its hot docking and dual display modes, but good luck explaining that to the SWAT team, the judge, and for that matter, the national TV audience. Call your lawyer Aries.

Gemini

May 21-Jun. 21



Uptime for your online Cable-knit Sweater Outlet hits an all-time high after the implementation of a more stable, more powerful, **HP Proliant ML 350 G3 series server**. The power of the Proliant combined with the warmth of cable-knit wool. It's a win-win, situation Gemini!



Cancer

June 22-July 22



Weighing in at a svelte 3.8 pounds, shedding light on all in its path, ability to travel wherever business goes - admit it, the more you think about the **HP Digital Projector mp3130**, the more you burn with bitter jealousy.

Taurus

Apr. 20-May 20



Sure, it's got integrated WLAN 802.11b and Bluetooth, a 64k color transreflective display - and much more. But although "Power In Your Pocket" might seem like a great way to describe the new **HP iPAQ h4150**, be selective in the manner and frequency of the term's usage.

Virgo

Aug. 23-Sep. 22



The enormous variety of genuine **HP Supplies, Accessories, and Services** is truly staggering, but do little to explain why you, yourself, are actually staggering. Frankly, the stars are concerned.

Libra

Sep. 23-Oct. 23



Your attempts to relay messages telepathically to your boss will finally prove fruitful, as you convey to him with your mind that the **HP Compaq d330 Series of business desktops** are a marriage of form and function, balancing value, performance and flexibility.

Scorpio

Oct. 24-Nov. 21

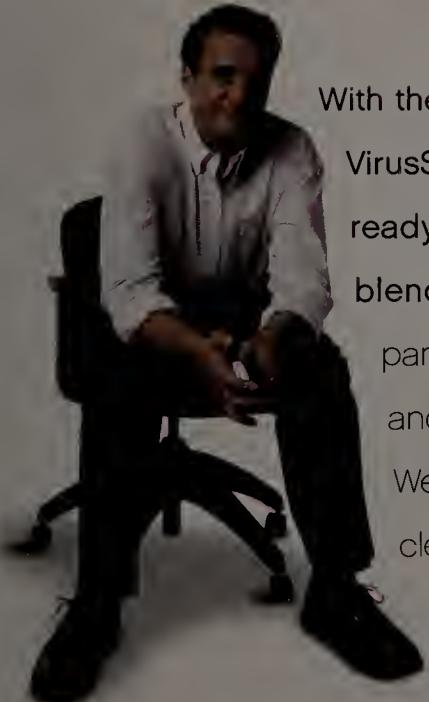


You've been using the term "hamfisted" to describe the productivity gains and cost savings of the bandwidth maximization experienced since implementing **HP's ProCurve Switches**. However, you're heartbroken to find out that this term has next to nothing to do with fistfuls of delicious, golden ham, and is in fact a complete misnomer.





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Little fish affordability

user can see what happened yesterday and why," he says. "We're not waiting for the Monday morning status meeting or phone call."

The open-source nature of SourceForge.net also carries benefits.

As open-source development proliferates, people will contribute to existing projects, producing additional functions and new security features. Stan Carney, a consultant working with Allstream, tells me that as each project gets rolling, the open-source community comes and adds the changes it needs without having to invest in a ground-up development program. "It brings software development closer to traditional engineering," he says. That's because "code is no longer hidden in a black box that can't be inspected."

The more that open source code moves into the enterprise, the greater transparency — and accountability — there will be in development. That places the emphasis even more squarely on people with project management skills, whose jobs will remain close to home. **44148**

DAVID MOSCHELLA

Revenge of The Dot-coms

STARTING a few years ago, we were all supposed to laugh at the dot-coms. How could anyone ever have believed, let alone invested in, their pie-in-the-sky theories and imaginary business plans? Surely, after the collapse of the Internet bubble, we would all come back to our senses, and normal patterns of business leadership would resume.

Of course, no one is laughing anymore. The reality is that in an expanding range of sectors, the dot-coms are getting the better of their pre-Web rivals. Companies whose very survival was recently questioned have turned the tables and are now threatening the survival of others. It's been an impressive recovery.

Consider just a few of the most prominent examples. Amazon.com has crushed Barnes & Noble and has successfully expanded into many forms of retail. Google and Yahoo/Overture Services dominate the online advertising business. Expedia maintains a healthy lead over the airline industry

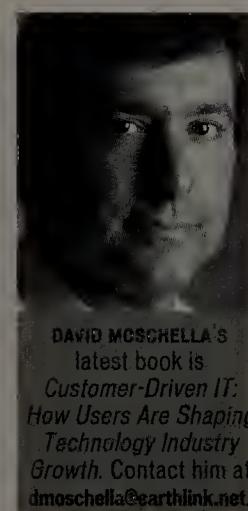
joint venture Orbitz.

Kazaa.com and Apple's iTunes have all but eliminated the offerings of the music industry giants. PayPal and eBay control the Internet funds-transfer business. WebMD remains the leading health care site.

Of course, there are other industries — such as news, banking and investing — where established pre-Internet firms are also online leaders, as well as individual online successes from other industries, such as Dell (computers) and Wal-Mart (retail). But when it comes to creating major new services and important

new forms of value, the start-up companies continue to have the edge. While this is especially true in consumer markets, the same pattern has generally emerged even in business-to-business markets.

Perhaps even more noteworthy, the strategic impact of the dot-coms is now starting to live up to some of the



DAVID MOSCHELLA'S latest book is *Customer-Driven IT: How Users Are Shaping Technology Industry Growth*. Contact him at dmoschella@earthlink.net.

most visionary bubble-time hype. Whereas many people once dismissed Amazon as a mere book-seller and Google as just the latest search-engine market leader, we can now see that they are positioning themselves as powerful e-commerce platforms and important providers of general-purpose technology services.

Both Amazon and Google have made great progress toward becoming broad-based Internetwork resources that, like operating systems and databases before them, can be used to create new forms of value in an ever-expanding set of ways. They are even managing to give tangible meaning to the idea of Web services, something that Microsoft, IBM and other pure IT players have struggled to do.

Why haven't established pre-Internet market leaders responded more effectively? The answer should be clear to anyone familiar with IT industry

history. Today's dot-com survivors are outperforming their established rivals for the same reasons that many venture-capital-backed IT start-ups have surpassed established IT suppliers. The younger companies tend to be faster, more focused and more motivated, resulting in more responsive organizations not bogged down by history. In other words, established pre-Internet businesses are having the same problems dealing with newcomers that mainframe, minicomputer and workstation vendors once did.

The bottom line is that there was always a lot more substance to the dot-com boom than many of us now seem to remember. While the many financial excesses of the late 1990s certainly needed a major correction, the ideas that created the bubble have lived on.

A decade from now, much of the promise of the dot-com revolution will be fulfilled. **44138**

WANT OUR OPINION?

More columnists and links to archives of previous columns are on our Web site: www.computerworld.com/columns

READERS' LETTERS

Net Tax a Bad Idea

REGARDING JACK VINSON'S letter of Dec. 15 [QuickLink 43384]: Brick-and-mortar merchants in most states collect and remit only one tax rate, not 7,500. Then the state revenue department distributes the money to the state, county and city. A sales tax on the Internet would put most merchants out of business, but maybe that is what Mr. Vinson has in mind.

James P. Cox
Varna, Ill.

for Internet Explorer. If you need to grab updates, it seems something thinner and much less vulnerable than Internet Explorer should be included.

Thomas K. Edgar
Distance learning technologist, U.S. Department of Defense, Stuttgart, Germany, tedgar@techie.com

Windows Server's Unnecessary Bloat

WHAT AN EXCELLENT article on the newest update of the Windows Server series ["Windows Server 2003: Raising Shields," QuickLink 42985]. I have always wondered why a server would include Outlook Express, Media Player and Remote Assistance.

I have installed an evaluation version over one of my test Windows 2000 Advanced servers and was pleased at the ease of doing that, but disappointed when I immediately needed to apply several critical patches, especially the one

for Internet Explorer. If you need to grab updates, it seems something thinner and much less vulnerable than Internet Explorer should be included.

Thomas K. Edgar
Distance learning technologist, U.S. Department of Defense, Stuttgart, Germany, tedgar@techie.com

A Real Hard Crash

WHEN MY 40GB HARD DRIVE died, I wasn't bothered much, because it was just left over from the original system when I made a 120GB drive my primary. So I took all the screws out of it and opened it up. There was a nice, shiny disk and the supersharp read/write heads. I couldn't get the bolts off to remove the platter, so I just reached in with the pliers to bend it out. *Bam! Crash! Tinkle!* The sucker was made of glass, not metal, and shattered into about 100 pieces. OK, NSA, try putting that together after you find it in the landfill ["Dawn of the Undead Data," QuickLink 43381].

Chuck Peterka
Exton, Pa., clpeterka@aol.com

Not All Academic

THE EXPERIENCE of the IT community here in Jacksonville diverges from the findings of Boston University researcher Nitin Joglekar ["Sidebar: Researcher Says Offshore Moves Don't Lead to Big U.S. Job Losses," QuickLink 43688]. Ever since Bank of America, Merrill Lynch and Prudential chose to send work to India, the local programming market has severely tightened. This began in early 2001 and has continued. The only factor that seems to drive the offshoring is pure greed and shortsightedness by CEOs.

Jeff Schwandt
Senior developer, Jacksonville, Fla.

Either Way, No Jobs

ACCORDING TO THE ARTICLE "Another State Looks Offshore" [QuickLink 43685], the Washington State Health Care Authority awarded the contract for an IT project to Healthaxis Inc., an Irving, Texas, company that has been working with an India-based outsourcer. To be fair to both sides, I wonder how PeopleSoft, Oracle or

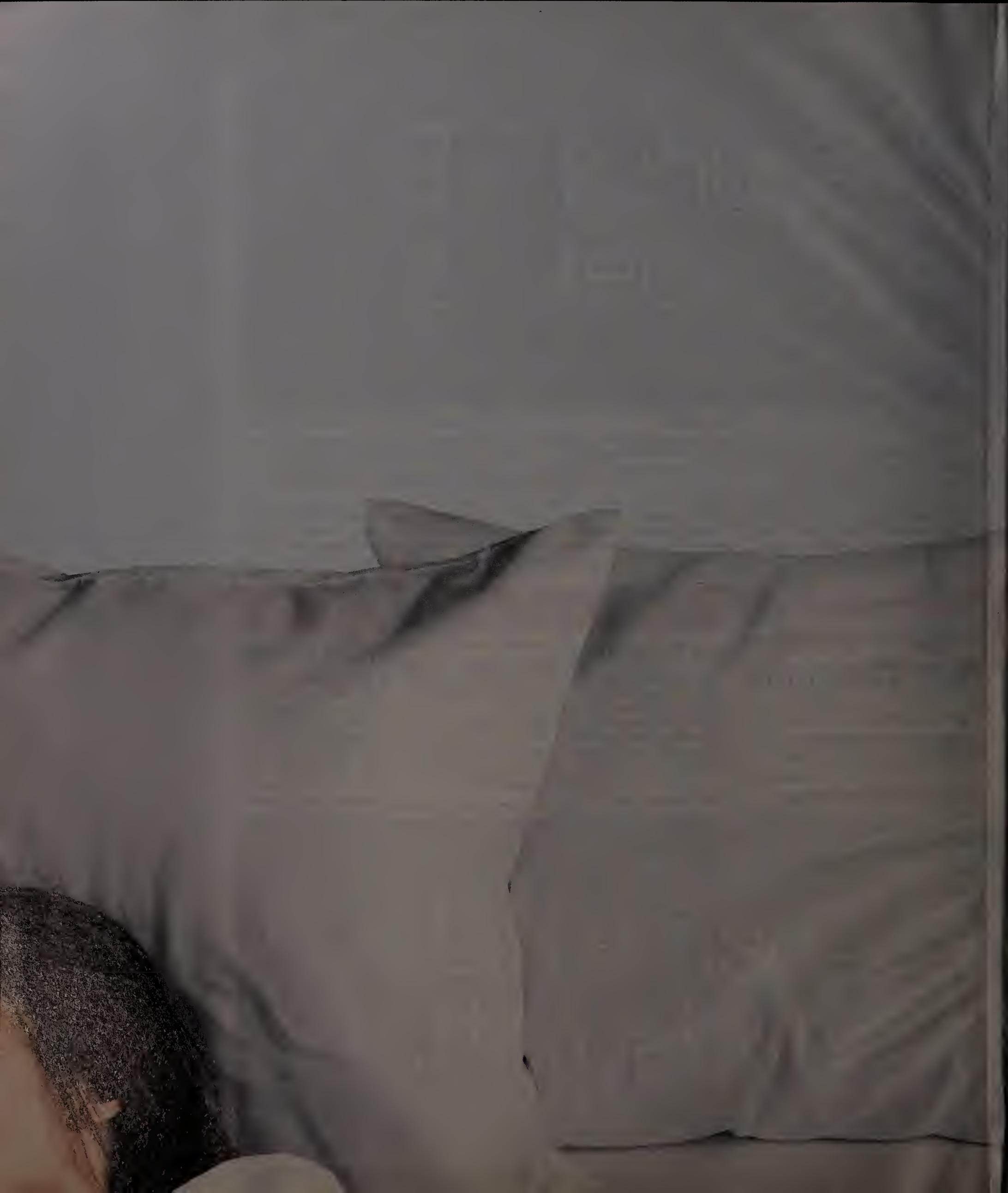
Deloitte (all of which bid on the project) would have approached it. Is it certain they would have used local IT workers? Chances are they would use people overseas. The outcome would be the same: no jobs for the local IT talent.

The only way out of this is for state governments that are concerned about the effect of unemployment to ban outsourcing to offshore companies. Similarly, the federal government should impose sanctions in the form of additional taxes on companies that transfer jobs overseas. Profit is a must for businesses, but profiting at all costs is unacceptable.

Srinivas B. Raju
Dallas

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WORM ENTERS ROOM 536 2:28AM
WORM EVACUATED BY NETWORK
2:32AM ORDER GRILLED CHEESE
AND FRIES 2:35AM DOZE OFF**

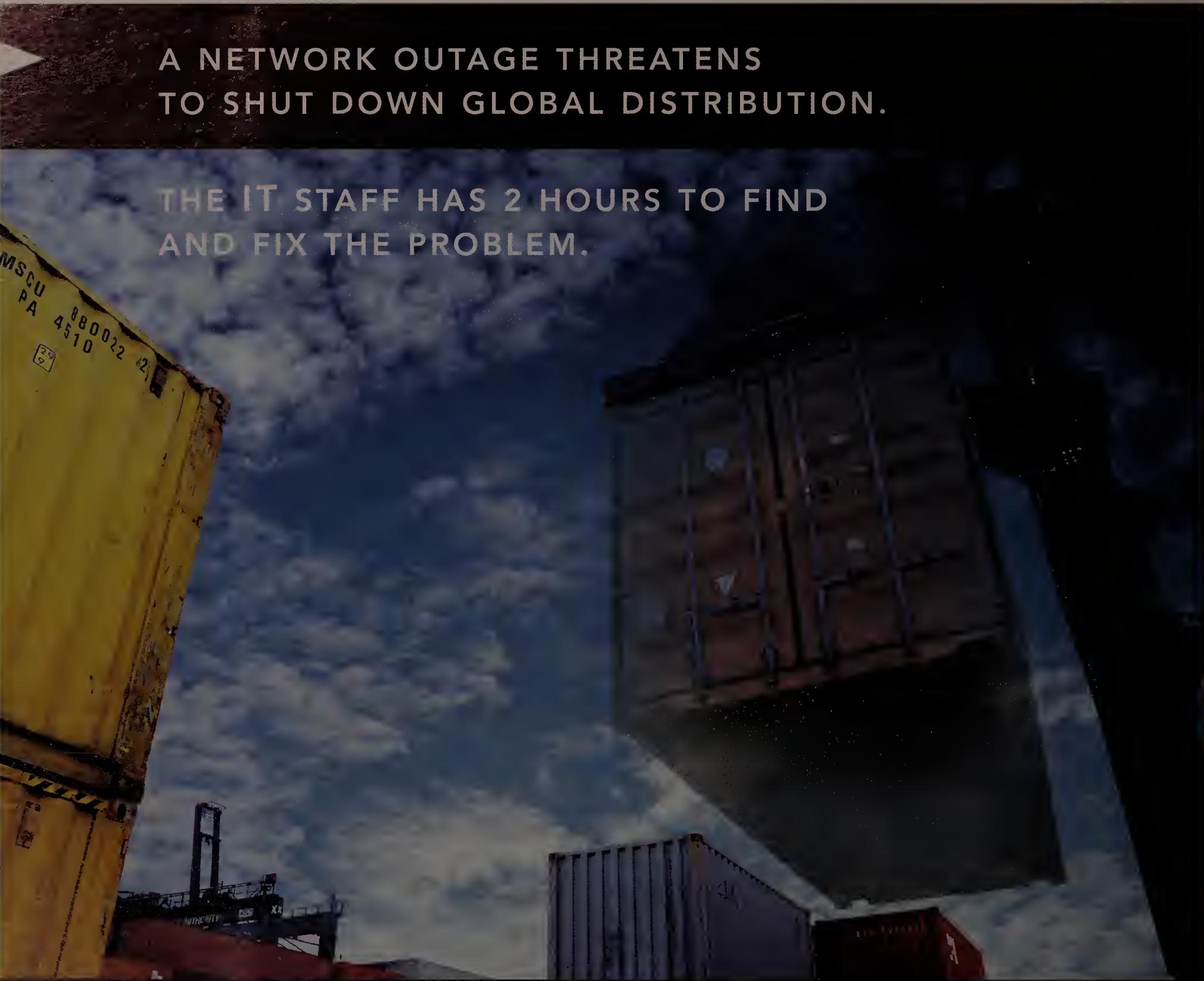
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TECHNOLOGY

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Q&A

Managing Data Centers Through XML

Tim Howes, CTO at data center automation vendor Opsware Inc., explains how the emerging Data Center Markup Language could benefit IT managers. **Page 30**



FUTURE WATCH

Printer Magic

Printable parts to fix PCs, TVs and maybe even the family car — your next parts order could someday be delivered through an ink-jet printer. **Page 31**

SECURITY MANAGER'S JOURNAL

Stepping Up to Sarbanes-Oxley

As his company accelerates its efforts to comply with the Sarbanes-Oxley regulations, Mathias Thurman must read between the lines to ensure that the IT security group's responsibilities are covered. **Page 32**

JACOB CROSSMAN, a software engineer at Soar Technology Inc. in Ann Arbor, Mich., uses blogging tools from Palo Alto, Calif.-based Socialtext Inc. to keep an up-to-date engineering notebook on his ideas about a particular project that can be accessed by other project participants.

"One of the disadvantages of a paper-based engineering notebook is that it's hard to find things unless you want to go through it manually," Crossman

says. "So I decided to use the blog feature of Socialtext's software to keep track of my ideas. I would type them in, and then they're immediately searchable using another feature of the software." He is also able to link to other documents about the project using the blog entry.

Crossman is not alone. Recently, weblogs, or blogs, which let anyone with a Web browser and some easy-to-use software publish a personalized diary online, have started to emerge as valuable knowledge

management and communication tools in companies.

But blogs aren't entering through the CIO's office. They often first appear in companies as the convenient records of engineering or design projects. They're taking the same bottom-up adoption path followed by instant messaging, another collaboration tool originally used for personal communication.

Weblog software, whether free, inexpensive or not so cheap, aggregates and publishes unstructured content on the Web by time and topic. XML can be used to embed links in the blog from a variety of resources, but no knowledge of that language or HTML is necessary.

The details and features of the technology vary by vendor, but blogging software is basically a simple content management system that's designed to take content written by the blogger and post it at the top of a page.

That content is either stored in a database or a flat file, depending on the software. Usually the presentation layer is separate from the content, so that the blogger can design the look and feel of the blog and simply fit the content elements within whatever format the user wants to read. Many blogging systems provide templates to make that easier.

Using blogs, companies can easily and quickly communicate information such as project updates, research, and product and industry news both inside and outside the business. Security issues are the same as with any Internet-based application.

Even though blogging technology has the potential to become important to their companies, most CIOs haven't paid much attention to blogging, and it's not one of the tools they're considering to solve their myriad IT problems, according to John Patrick, president of Attitude LLC in Ridgefield, Conn., and former vice president of Internet technology at IBM.

"I believe it is important to the CIO and the enterprise, because blogging introduces a new way to create, share and leverage knowledge in the enterprise," Patrick says.

But Jamie Lewis, an analyst at Burton Group in Midvale, Utah, says he isn't sure all companies should immediately jump on the blogging bandwagon. "Whether companies should look into using it depends on corporate culture and the kind of culture they're trying to develop," Lewis says.

Blogging is like a lot of other collaborative tools —

BLOGS BUBBLE INTO BUSINESS

Weblogs began as a personal communications medium, but they're moving into corporations as tools for collaboration and knowledge management.

BY LINDA ROSENCRANCE



if the company is good about trying to encourage and generate cross-functional and interpersonal collaboration and communication, then it's a good idea, Lewis says.

Internally, some corporations are using Web tools like Six Apart Ltd.'s Movable Type to create project management blogs, says Anil Dash, vice president of business development at Six Apart, a weblog software vendor in San Mateo, Calif.

"You can do things like start one weblog for each project and have it run its course," Dash says. "As the project continues along, everybody can do status updates and be able to link to every other relevant resource, whether it's on the Web or in a Word document or in a proprietary company database. So for internal use, you have a lot of flexibility, and it respects the firewalls and the other boundaries you've already put in place."

Michael Masnick, president of Techdirt Inc. in Foster City, Calif., says that while most corporations have knowledge management tools and corporate portals to organize internal data, they don't have an effective way to deal with external information. A blog allows users to integrate internal and external information.

Enterprise blogs provide companies with easy-to-use tools to manage external information, which is extremely critical because it affects relationships with customers, partners and investors, as well as internal decision-makers.

"Having an enterprise blog provides a strategic ad-

A Collaborative Difference

With collaboration software snagging a portion of IT budgets these days, how is blogging related to all those virtual meeting places being built out there?

A blog is a simple content management tool, rather than a collaboration tool like those offered by WebEx Communications Inc. and Centra Software Inc., according to Michael Masnick, president of Techdirt.

"The blog is used for presenting information in an easy-to-use format," he says. "The two things can, and often are, used in complementary ways. Think of WebEx-type applications as a meeting room and blogs as a bulletin board. Both can be used for collaboration, but in different ways."

Ross Mayfield, CEO of Socialtext, agrees that blogs are good for ongoing communications about a particular project within a company as well as with clients. Blogs are less complicated to use and less formal than collaboration suites and electronic meeting rooms.

"Companies use blogs for the conversation that occurs between team members," Mayfield says. "What's been missing is a tool to support that same lightweight communication or that simple communication that occurs, i.e., 'We're a little bit ahead of schedule,' or 'I'm running into a barrier in completing a certain task, and does anyone know where I can find that information?' It's easy for companies to create status update messages — one for internal use and one for external use."

— Linda Rosencrance

vantage over the competition and helps companies gain market share and respond faster to their rapidly changing business environments," Masnick says.

The U.S. Department of Defense's Naval Undersea Warfare Center (NUWC) in Newport, R.I., is using TeamPage enterprise blogging software from Providence, R.I.-based Traction Software Inc. to create a secure communications hub for a project to evaluate night-vision technology.

The blog is part of a pilot project to speed up communications within the DOD's test and evaluation programs. NUWC will use it to ensure that information about its testing of the night-vision technology will be available in real time to its partners, including Ford Motor Co. and the U.S. Army's night-vision lab, according to Tammi McVay, program analyst project lead at NUWC.

"[Some of our partners] will test this night-vision technology under various circumstances and log their test results and any observations that they have on our weblog, and all our other partners will have immediate access to it," McVay says. "We're working with all unclassified data for this go-round, but we'd need to look at this further to see how it would work in the world of classified information."

After the four-month pilot is over, the DOD will analyze NUWC's results and determine whether blogging has a future in the agency, says McVay.

Traction President Greg Lloyd says enterprises can use weblogs in a number of ways.

"We focus on groups within the company where communication either within the company or with channel partners or customers, or both, is part of their main business activity," he says. "What the weblog provides is a very simple way to collect, organize and disseminate information that works and acts like a Web newspaper."

Keeping Up to Date

Weblogs give people a self-service way to find out what's happening within the company, Lloyd says.

"With our software, you can add comments or questions on any paragraph you see," he says. "So if someone in the sales organization sees something that a competitor has just announced, that salesperson can add a note under the paragraph that talks about the new product announcement and make it visible to members in the sales team or only visible to the people in the competitive intelligence group, who would then correlate it and send it throughout the organization."

Many corporations aren't aware of the substantial business potential of enterprise blogs, says Toronto-based author Jim Carroll, who has written about business weblogs.

"If I'm a customer and I'm dealing with a product that has some type of well-known problem, to be able to access a blog and track that blog and to be able to track historic postings on that blog — I think that would be useful," Carroll says. "The example I use is Harley-Davidson building a blog for its customers to keep up to date on all the cool stuff that's happening with Harley, because people are religious about their Harleys. But I don't think the marketing world has figured it out yet."

One of the reasons the upper management at most corporations hasn't really warmed up to the enter-

Why a Business Blog?

Here are some of the ways weblogs can benefit a company:

They're quick and easy: Blogs aggregate information and make it relevant to their audiences in an easy-to-read format. Enterprise users can scan a customized blog and feel confident that they have a good sense of what's happening on their project, in their company or in their industry.

They provide a central repository: Blogs put information in a central location, making it accessible to large groups of users. Information is archived in a searchable and sortable format for future reference. This becomes useful when a user needs to look up some information from a previous month or wants to aggregate all information available about a particular company or trend.

They create a knowledge community: Blogs let groups share, discuss, annotate and amend content. This interactive component highlights the value of the information and allows users to quickly and efficiently identify action items.

prise blog as a marketing tool is the end of the '90s high-tech boom, Carroll says.

"I think people got excited about the Net. They got excited about it as a marketing tool and a customer-support tool — as a tool by which they could innovate their business processes. And then everything went wrong, and everyone out there is too darned terrified to try anything new right now," he says.

But at lower levels of business, the convenience and usefulness of blogs is more powerful for users than technophobia.

"The trend that's happening now is that users are seeing the need for blogging like they have with other disruptive technologies, and they're bringing them into the enterprise at the workgroup or departmental level," says Ross Mayfield, CEO of Socialtext.

Mayfield says the adoption scenario begins when a single worker sets up a work space for his workgroup. The group then goes on to build a business case for how blogging is adding value just on that small scale.

"Then that person creates a work space with somebody who's in a different workgroup, and gradually what ends up happening is you gain this critical mass of building business case after business case within an organization," he says. "And by the time the CIO is really looking at the technology to make a top-down buying decision for the enterprise, they already have an existing class of business cases and proven techniques of how users are adopting it."

Mayfield says because these blogging tools are inexpensive — approximately \$30 per user per month — easy to use and accessible, there's the potential for growth within the enterprise similar to the growth of instant messaging.

"I would expect it to be the same way, where users are just going to have it first, and then managers are going to realize increasingly the value of it as a management tool," Mayfield says. **43761**

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Disposable IT DRIVES CAMPAIGNS

The 2004 primary campaigns demand fast and easy IT systems that deliver results like there's no tomorrow.

BY MARK HALL

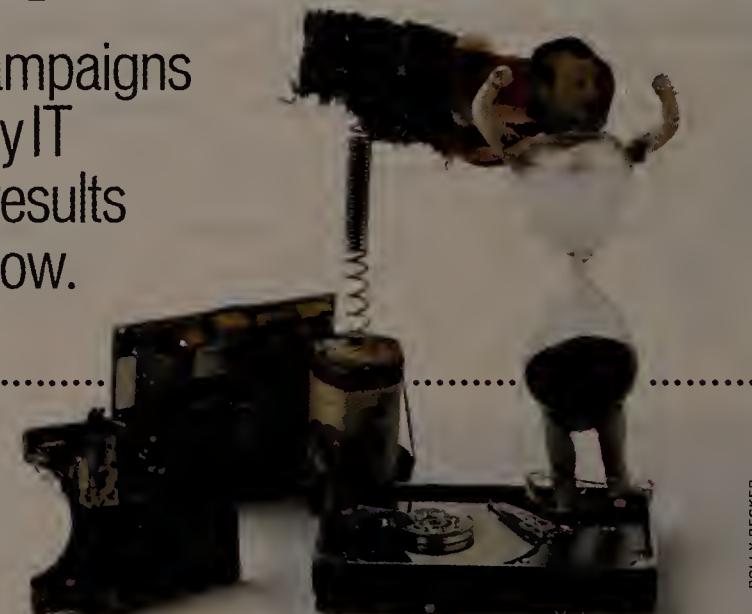
ONE OF THE most striking aspects of this year's presidential primary race is the sudden importance given to candidates' IT operations. Everything from elaborate Web sites and aggressive online fundraising to e-mail campaigns and blogs have been embraced by virtually all of the candidates running for president.

And yet while IT professionals might assume that getting a campaign's IT operations up and running is a complex and time-consuming affair, what's most striking about these IT infrastructures is how quickly they're cobbled together — and then discarded. For better or worse, campaigns live in a world of disposable IT.

"Everything you use didn't exist a year ago," says Mike Liddell, director of Internet strategy for the Joe Lieberman for President campaign in Arlington, Va. "And what you've created was done in a short amount of time and has a short life cycle."

That means concerns about integrating with back-end systems or anticipating the long-term effects of choosing between an open-source technology or a proprietary approach just don't matter, since the life cycle of a presidential campaign is so short.

Unlike most businesses,



POLLY BECKER

campaigns have a termination point, says Sean Kewley, vice president of Voter Solutions Inc., a Chicago-based supplier of database and voter analytic software. That's why they don't invest in an IT infrastructure loaded with network switches or high-performance servers. "Why would you, when you know that the organization is going to dissolve on election day?" he asks.

But if the IT organizations are more nimble than their corporate counterparts, they're

not necessarily more advanced. Jan Soulé, vice president of marketing at Campaign Superstore in San Jose, says she thinks presidential campaigns are far behind on current technology "because they only look at it every four years."

Her company offers Web site templates for candidates running for office, including Rep. Jim Gibbons (R-Nev.). With them, Soulé says, a candidate can get a professional-looking site for about \$1,000 — a reasonable amount to

spend on a system that will simply be cast aside at the end of the election cycle.

Time to Market

Nicco Mele, webmaster at the Dean for America headquarters in Burlington, Vt., says he agrees that long-term IT thinking is detrimental to a political campaign. "What matters is how fast. It's a time-to-market environment," he says. So, like many corporations today, campaign IT organizations turn to outsourcing.

For example, Howard Dean's campaign makes heavy use of streaming video on its Web site but never gave a thought to developing any infrastructure for it in-house. Instead, the campaign relies on streaming media service provider Wavexpress Inc. in New York.

Throwaway IT operations also affect the kinds of people hired or accepted as volunteers inside a candidate's IT organization. It's vital to quickly get people who have similar skill sets because there's no time to train anyone.

The Lieberman campaign uses an all-Microsoft technology strategy, from Internet Information Server on the Web tier to Exchange for messaging and SQL Server for databases, because most potential IT staffers are familiar with those products, Liddell says.

For Dean's IT troops, however, adopting popular open-source technologies is the way

to go. His campaign's Web infrastructure includes Red Hat Linux, Apache Web servers and Bricolage, an open-source Web content management tool from Kineticode Inc. in San Francisco.

Short-term Thinking

It's doubtful that politicians will change their attitudes about IT as a transient resource and think beyond their current campaigns. In many cases, the IT infrastructures and even the data are discarded.

Michael Badnarik is trying to get the nod as the presidential candidate for the Libertarian party and spent more than 30 years as an IT developer and consultant. He says the discarding of data reflects the time-critical nature of most voter information. "That's essentially the problem: It drops to zero after the election," he says.

For all the drawbacks, however, a disposable IT strategy that gets results quickly could transfer well to some corporate projects with short-term needs, such as on-site audits and targeted marketing efforts, say campaign workers.

And the approach of campaign IT organizations mirrors that of at least one type of business: companies that emerged during the dot-com boom, when time to market was everything. "It's like working in a start-up," Liddell says. **Q 44011**

PAPERING OVER E-VOTING PROBLEMS

THE POLITICALLY PARANOID got even more nervous last year when researchers at Johns Hopkins University analyzed the code inside AccuVote-TS machines built by Diebold Inc. and found it flawed.

Avi Rubin, technical director for the Johns Hopkins' Information Security Institute in Baltimore, which evaluated the Diebold source code, says the company's developers used Data Encryption Standard, an outdated encryption technology, and "then they used it wrongly."

His team's research claims that smart cards used by voters to access the machines can be counterfeited, letting voters "cast multiple ballots without leaving any trace." Furthermore, security was lax enough to permit precinct workers to fiddle with the machines' vote tallies.

Rubin adds that the systems are also vulnerable when they communicate to "home base, both to fetch election configuration information and to report final election results." According to the research, Diebold's technology "[does] not use cryptographic techniques to authenticate the remote end of the connection nor do they check the integrity of the data in transit."

North Canton, Ohio-based Diebold has attacked the report as "inaccurate" and suggested that Rubin is biased because he consulted with a Diebold competitor. A Diebold spokesman also says that the researchers ignored local election certification processes that help secure the systems.

But Douglas Jones, a professor who studies election technology at the University of Iowa in Iowa City, says those processes are neither rigor-

ous nor well-enforced, and that's what comes to mind when one thinks of certifying technology.

He points to a study of Diebold systems in California that found that every county that used them ignored the proper procedures for certifying and registering the machines.

Both Rubin and Jones say the best way to secure and accurately automate voting is via a paper audit trail. Indeed, some states have moved to provide election officials with a paper audit process. Voters can check the results by voting twice, once on a paper ballot and once on a touch screen, which can be checked for accuracy.

On the other hand, Jones says, "Having a paper audit trail is not enough. It's not enough to have a paper audit trail and not have a paper audit process. It's not enough to have a paper audit process and not have a paper audit trail."

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LAST FALL, some 40 management tool vendors formed the DCML Organization, a consortium committed to developing an open standard to facilitate interoperability and better integration between tools. Vendors say the the evolving Data Center Markup Language will be critical to the development of utility computing and simplify life for data center managers. The first release of DCML is scheduled this quarter, with products adapted to the specification expected by midyear.

One of the leaders of the effort is Tim Howes, chief technology officer at Opsware Inc., a data center software automation vendor in Sunnyvale, Calif. He discussed the motivations for developing DCML and its technical challenges and potential user benefits with reporter Patrick Thibodeau.

What problem is the DCML Organization trying to solve? Over the past five to eight years, there has been a tremendous explosion of complexity in the data center. The problem is that the traditional management tools haven't kept up with that explosion. You have something doing monitoring, for instance, that needs to communicate with something doing provisioning.

Think back 10 years ago. There were relatively few servers in the data center. Those servers were relatively large, and they were running a relatively small number of applications, maybe in the dozens. Today, there are literally thousands of servers in data centers, as well as hundreds or thousands of applications running across those servers. The complexity of managing that has just gotten out of hand.

Where are existing management tools falling short? It's not so much that they are falling short. The problem is that no one company writes data center management software that solves the entire problem. Even if there were such a company, would you really want to put all your eggs in that basket?

Where does DCML fit in? There's a need to have all these management products communicate with one another, and that's what DCML is about — providing a common data format for exchanging information about the environment being managed between all of these different management systems.

Can you give an example of how that would

Q&A

MANAGING DATA CENTERS THROUGH XML

work? When you provision a new machine, you want to make sure that machine is monitored, so you need to communicate to your monitoring system that there's a new machine to be monitored. Today that happens, if you are lucky, by somebody leaving a Post-it note on the monitor of the guy who runs the monitoring system. But DCML allows that to happen in a more automated fashion. Similarly, that happens with security systems, backup systems — there are all kinds of different systems. DCML provides the vocabulary, the language if you will, for those systems to communicate with each other.

How long is the list of applications and systems potentially affected by DCML? The list is ultimately as long as the variety in the data center — any system that you are using to manage your environment. We're focused

on the data center because that's where we think the most complexity is, but the complexity actually extends beyond the data center to other environments as well, and there's nothing to prevent you from applying DCML to those environments.

What are the initial goals for DCML? We're trying to create a standard data format that can be used to exchange information between automation and utility computing systems and traditional management systems. The use cases that we have in mind are: making sure provisioning systems can communicate with the systems that manage the machines that they provision; making sure those systems can communicate with the asset-tracking, inventory and billing systems that are responsible for keeping track of what's going on in the en-

vironment; and translating that into billing for customers or cost accounting for internal purposes. We want all these things to be able to communicate with one another.

What technical challenges do you face?

The biggest technical challenge is being able to deal with the level of diversity that's out there. Another technical challenge is to define DCML in such a way that it can be adopted incrementally so that neither vendors nor customers have to radically change their products or how those products are used.

What kind of information must be exchanged, and in what format? The format is XML-based. The information really falls into three categories. The first is the physical components themselves — the environmental information, such as characteristics of the server and networking gear. The second type of information, called the library, is the best practices and policies that you want. Finally, there is the blueprint, which shows how to combine those physical components in with the best practices that you specified in the library to produce an actual environment. DCML is not going to mandate the best practices. Instead, it will provide the mechanism to express best practices that would be different from one IT department to another.

The big challenge in writing standards is often political — balancing competing vendors' agendas. Is that true here? It's always a bit of a challenge. We've got an opportunity to decide whether we want to make a standard that's very useful on the ground and works or that satisfies the political winds of different players. Historically, the standards that are successful are the ones that stay focused on implementation and adoption. Success to me is not how many [vendors] sign up and say they are going to support the standard. Success is how many get it into their working code and then how many customers end up using it.

Some big vendors, including Sun, HP and IBM, aren't involved with DCML. Can you succeed without their participation? It's not at all surprising to me. The big companies are invested in their own proprietary technologies, and they often don't see it in their interest to migrate to an open standard until or unless their customers force them to do so. **43764**

TIM HOWES
CTO
Opsware Inc.
Sunnyvale,
Calif.

Howe is co-founder of data center automation software vendor Opsware, which helped found the DCML Organization. Previously, he was vice president of technology at America Online Inc. Howe holds a Ph.D. in computer science from the University of Michigan, is co-inventor of the Lightweight Directory Access Protocol and is a member of the Internet Architecture Board.



JOYCE HESSELBERG

PRINTER Magic

Coming: 3-D electronic parts from your ink-jet printer. **By Todd R. Weiss**

YOU'RE DRIVING across Iowa on a steamy, sunny Fourth of July weekend when the car dies and coasts to the side of the road, the victim of an electronic part gone bad inside the alternator.

Luckily, there's a 24-hour repair shop in Iowa City where they can "print" you a new circuit board on the spot using a specially equipped printer that sprays out layers of inklike polymers, with all the electronic connections and transistors laid out in the proper arrays.

A mechanic installs the part, and you're back on your way with a repaired alternator.

A wild dream? Not necessarily.

Today, scientists at universities and companies are working on just such technologies, where specialized commercial ink-jet printers can be used to create 3-D parts using processes that spray liquid plastics, one layer stacked atop another, to build up a component.

So far, researchers are able to create small transistors using 3-D printing methods, while specialized industries already exist that can print prototype, one-off parts.

But while experimental transistors and prototype parts are being created separately today in labs, the technology still isn't here for printers to build

FUTURE WATCH

electrical circuits integrated into completed, working parts.

That technological jump could come in five or more years, says John Fitch, a mechanical engineer at Palo Alto Research Center (PARC) in California. "That's a vision I'm sure some people are trying out right now," he says. Eventually, technology that allows devices to print out 3-D parts with integral electrical capabilities could have limitless uses, replacing expensive silicon-based electrical components with parts made from cheap plastics.

The technical challenges are still large, however, including the potential need for many different kinds of materials to be printed, from plastics to steel to aluminum or even carbon fiber. "It means that everybody would have to have a printer that has lots of different cartridges or lots of different printers," Fitch says. "The chemistry of that is pretty complicated."

Rather than ending up as consumer items, such printers could ignite an industry in photocopying shops or other businesses where users could send a parts order by e-mail and pick it up or have it shipped to them, he says.

Smart 'Paper,' Labels

Plastic Logic Ltd. in Cambridge, England, which today creates ink-jet-printed plastic transistors to make active-matrix backplanes for flat-panel displays, foresees a host of new markets for the technology.

"Absolutely we see the large markets in things other than in prototyping," says spokesman Cranch Lamble.

"We've got a road map to work on two things," he says. They are "electronic paper" video displays — thin, flexible display devices — and flexible, plastic "smart labels" that could be used on consumer products. Such labels would contain electronic circuitry that could trigger warnings to notify consumers when food in a package is no longer fresh or could include a dis-

My kids would love a Lego printer [to create customized Lego building blocks for their construction projects].

3-D PRINTING RESOURCES

To get more information about 3-D printing and the research being done in this developing field of science, visit our Web site:

QuickLink 43973
www.computerworld.com

posable timer on a container of hair dye to let the user know it's time to wash the dye out.

The actual creation, though, of replacement parts on demand will take much more engineering, he says. "I see that as a very long-term vision of the technology," Lamble says. "We want to enable others to think about what can be done with these devices."

Printable parts are also being worked on today by researchers at the University of California, Berkeley, where flexible, one-piece 3-D devices are being manufactured using ink-jet printers that build parts one layer at a time.

These experimental, proof-of-concept devices, some of which look like miniature ladders, can be stretched or compressed to enable motion, but they don't require any assembly. Called flexionics, or "printable flexure-based mechatronics," the structures are being developed with the possibility of someday adding gears and shafts and other mechanical components, as well as capacitors to store electricity, says Jeremy Risner, a UC Berkeley graduate bioengineering student who is working on the project with John Canny, a professor of electrical engineering and computer science.

"You can certainly imagine you could print out a whole drive train, if you can get the clearances," says Risner. "We want to print out functional devices."

Printing movable parts would be far harder than printing static components, of course. The idea of building printers that can churn out parts from various materials would be key to making it work, Risner says. "Ten different materials, even if they're 10 different plastics, is really cool to think about now," he says. "I think it's far-fetched now, but . . . [maybe] it's something that would be feasible."

Ultimately, there could be specialized consumer products made by ink-jet printing technology, says PARC's Fitch. "My kids would love a Lego printer" to create customized Lego building blocks for their construction projects, even including electrical capabilities in the blocks to have them operate robotically, he says. "There may be some markets where it's actually big enough" to be a commercial success, he adds. **Q 43994**

Stepping Up to Sarbanes-Oxley

When it comes to compliance, some aspects of meeting the law's requirements may fall to the IT security group. By Mathias Thurman

MOST information security professionals are probably familiar with at least one of the many recent regulations that have an information security element to them. For my company, the legislation of concern is the Sarbanes-Oxley Act, which has presented new financial accounting and reporting requirements.

I recently reviewed the law to see what the IT security group needed to do to ensure compliance. It was without a doubt the most boring document I've read in months.

Besides getting bored, I also came away confused because it offered no guidance on the related information security issues. After further reading, I decided that the most important part for my group is Section 404, titled "Management Assessment of Internal Controls." This section mandates that management attest to the effectiveness of our company's "internal control" structure and procedures for financial reporting. *Internal control* is an extremely broad term, but I translated this section to mean that the CEO will expect my group to have sufficient controls in place to ensure the confidentiality, integrity and availability of financial and other critical information. So I came up with an initial plan to ensure compliance.

Over the past few years, I've put together a series of information security policies, standards, procedures and guidelines. Some of these documents are published, others

are available to those who ask, and others are just sitting in a shared folder on our network.

I think we have enough infrastructure in place to satisfy most expectations of our executive staff and any auditor. But to make everyone's lives easier, I decided to standardize on a methodology for policies and standards called ISO 17799 — something many of

my peers are also doing. The ISO information security code of practice consists of a framework that provides guidance in creating strong information security.

The ISO framework consists of 10 main sections, with several subsections within each. First I created a table of contents, making sure that the expected ISO 17799-compliant headings were in place and that there was a place for every policy, standard and guideline that we have created over the past few years. Most of our documentation exists as either Microsoft Word or Adobe Acrobat files. Eventually I'd like to convert all of the

“

Sarbanes-Oxley mandates that audit reports contain a description of internal controls testing. . . . That presents a problem.

documents to HTML and create a hyperlinked set of documents where users can quickly navigate from a policy to the corresponding standard, guideline and procedures.

Even a well-organized set of documents doesn't ensure compliance with those corporate standards, however. Sarbanes-Oxley mandates that audit reports contain a description of internal controls testing and that we document our system of internal control. That presents a problem.

The Auditor Issue

We used to have an audit person in the information security department, but after he resigned, we never replaced him. At the time we couldn't find a qualified candidate. Then, eventually we lost the requisition for that position, and the work he had been doing fell by the wayside. We do have a separate audit department, but it mainly focuses on financial matters, not IT security.

From my perspective, the important aspect of compliance is ensuring that the policies and standards we have created are followed and that we have a program to ensure that all departments are complying with the appropriate standards. This means that we have to take the time to revisit the standards we created to make sure they're up to date.

We started this work by scheduling meetings with each department in order to review documentation and ensure that it is current and being followed. We also looked at some of the work the previous IT security auditor had completed. Along the way we found an Access database that lets us enter audit items and track compliance and areas of concern.

Fortunately, there has been

an extension to the Sarbanes-Oxley compliance date, and that should give us the time we need to satisfy these audit requirements.

Goals for 2004

While the Sarbanes-Oxley effort will consume much of my team's time for the next few months, I have a few other high-level initiatives in store for my group this year.

The first will be an identity management system that includes public-key infrastructure technology. The challenge will be identifying all of the applications that the identity management system will touch and ensuring that we make the right decision on which vendor's PKI system to use. Along the way we'll have to decide whether to install a certificate authority in-house or outsource that function.

Finally, there is still a lack of compatibility between PKI vendor offerings and other products. It's imperative that the system we pick be compatible with all of our applications and operating systems.

After that's completed, we will be looking for a new event-correlation tool. Our current product just isn't performing as well as we'd like, so we will look at several other contenders. In addition, we will be looking to install a remote scanning system to continually scan our infrastructure for vulnerabilities. Finally, we will begin installing a configuration and patch management tool to address inconsistencies within our environment.

We want to ensure that both our critical servers and individual desktops have consistent configurations and are up to date on patches for each environment. Those projects should keep us busy well into the new year. **43963**

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "Mathias Thurman," whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com, or join the discussion in our forum: **QuickLink a1590**

To find a complete archive of our Security Manager's Journals, go online to computerworld.com/secjournal

SECURITY LOG

Sarbanes-Oxley Resources

I've found the following Web sites helpful in understanding the IT security implications of the Sarbanes-Oxley Act:

■ The PCAOB-Online's Sarbanes-Oxley Web Site: www.sarbanes-oxley.com

■ The American Institute of Certified Public Accountants' Web site: www.aicpa.org/sarbanes/index.asp

■ The KnowledgeLeader Internal Audit and Risk Management Community is a subscription-based site, but you can sign up for a 30-day trial to review white papers, policies, articles and presentations related to Sarbanes-Oxley: www.knowledgelerader.com

— Mathias Thurman

Security Bookshelf

Malware: Fighting Malicious Code, by Ed Skoudis and Lenny Zeltser, Prentice Hall PTR, 2003.

This is one of the best books I've read on dealing with malicious code. It offers common-sense explanations of terms and problems and goes into detail on areas ranging from hostile Java applets to steganography (communications hidden in digital files). If you have been affected by the rash of recent worms or just want to enhance your breadth of knowledge, pick up a copy.

— Mathias Thurman

Skoudis and Zeltser have written a fantastic book that contains all the passion and creativity Skoudis puts into his presentations for his SANS Institute courses. The book takes you on a tour of all the major forms of malicious code and many up-and-comers.

With technical staffs as enthusiastic and as skilled at communicating ideas as the authors, us good guys might just have a chance.

— Vince Tuesday



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BRIEFS

AlterPoint Bundles Network Products

AlterPoint Inc. in Austin last week announced its DeviceAuthority Suite, a bundling of three network configuration management products: DeviceAuthority Audit Module, DeviceAuthority Update Module and DeviceAuthority Server. Integrated Network Environment, a new tool in the suite, provides real-time integration and feedback. Pricing starts at \$19,950 for 100 devices.

Veritas Broadens Linux Support

Veritas Software Corp. in Mountain View, Calif., has expanded its support for Linux by including SUSE Linux and VMware. Veritas said it now has a full complement of enterprise storage, data protection, high-availability and automated provisioning software on SUSE Linux and Red Hat Linux.

Red Hat Updates Linux 3 System

Red Hat Inc. in Raleigh, N.C., announced the first major update for its Enterprise Linux 3 operating system, adding features for Red Hat Network support subscribers. Those include performance enhancements for AMD Athlon 64 CPUs; improved support for IBM iSeries, pSeries, zSeries and S/390 systems; and support for new Intel Itanium 2-based systems. The updates are available free from Red Hat.

NetScaler Offers New Switches

NetScaler Inc. in Santa Clara, Calif., last week introduced the 9900 Secure Application Gateway and the 9950 Secure Application Switch. The devices are designed to optimize application performance and security in the Layer 4-7 traffic management market. The 9900 gateway sells for \$55,000, and the 9950 switch sells for \$90,000.

CURT A. MONASH

Find a Successful Search Strategy

TEXT-SEARCH TECHNOLOGY is finally coming of age. Stand-alone search "solutions" can still be ludicrously bad: Monsanto's top 10 hits for "fertilizer" lead to boilerplate legal disclaimers, Boeing's top 10 hits for "jet fighter" feature discontinued aircraft, and Toyota's top 10 hits for "Camry" are in Chinese. But when text search is integrated into a broader application framework, the story is much happier. Search is

a clear success in several specific niches, such as online retailing or regulation-driven document management. And as the means improve of integrating text with other kinds of data, a much broader range of text-aware applications is becoming practical as well.

Some of the more intriguing opportunities include:

Upgrading your Web presence. Surely you already have a search capability on your Web site. But it could probably be a lot better.

Upgrading your online documentation. If you provide a lot of technical information online, it's probably hard to navigate. Helping customers find what they need more easily can save both them and you a lot of money. Effective text search is crucial in this effort.

Navigating applications more easily. Large e-commerce sites are often best navigated via text queries such as "John Grisham" or "red turtleneck sweaters." The same may be true for back-office systems such as merchandising or purchasing.

Helping your people find one another. Suppose an employee searches for information on a subject and finds vaguely relevant information written by a colleague. There's a good chance that talking with this person will help your employee find out what he needs to know. Not only is such expertise-finding invaluable in global engineering and consulting organizations,

but it also can be helpful in figuring out how to approach particularly tricky or important sales challenges.

Digging into text mining. You probably have a wealth of text and even voice records pertaining to customer contacts — service call reports, call center reports, sales call reports, customer letters and e-mails, even recorded phone calls or chat sessions. Analyzing these could turn up crucial information

about customer segmentation or about product strengths, weaknesses and flaws. It's a gamble, because you don't know how much you'll really find — but just like the original form of data mining, it's a gamble worth taking.

All of these application scenarios depend on text being related to other kinds of data. In unaugmented text search, documents are searched for words and phrases, which are then used to assess the subject of a document. However, linguistic techniques alone aren't enough to produce satisfactory results. This is why pre-Google search engines all failed; until Google came up with an effective way to use extra, nonlinguistic information, the Web search relevancy problem simply couldn't be solved.

Google's solution — looking at a page's "link popularity" — isn't applicable to most corporate search environments. However, enterprises have access to plenty of other extratextual information.

Documents can be tagged by date, author, subject and, above all, intended audience and purpose. Customer communications can be associated with tremendous amounts of customer and product data. Most of this information is best stored and communicated via SQL, Lightweight Directory Access Protocol (LDAP) or XML.

The key point of integration between text and these other kinds of data is a full-featured database management system. IBM and Oracle both support "WHERE CONTAINS" syntax, letting text searches and normal relational queries be joined in a single SQL statement. And since SQL systems these days can also talk XML and LDAP, those integrations are provided as well. Text-specific features are still missing from application development tools, but that's not crucial. Since relational database management systems stuff an entire document into a binary large object field, generic SQL building technology is usually all a programmer needs.

What's trickier is integrated administration of text and tabular data. Text search relies on specialized text indices, which are huge, sparse and generally a lot like bit maps. Integrating text (or bit map) indices into relational databases is far from trivial.

Fortunately, however, Oracle and IBM are pretty far along in text/relational integration, with Oracle being somewhat ahead of IBM. Microsoft, which has long lagged behind, pledges to narrow the gap soon.

So should you incorporate text search in the applications you build or buy? For most enterprises, the answer is yes. Text data is obviously pervasive and important. The cost of integrating text with other data types is manageable. Text-search boxes are a major form of user interface. If you don't have a text strategy, you're probably not getting the most out of your IT opportunity. **44141**



CURT A. MONASH
Consultant in Acton, Mass.
You can reach him at
curtmonash@monash.com

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Closing the Deal

GE Real Estate has automated most of the front-end processes on commercial real estate deals, and that has led to shorter cycle times and higher volumes. **Page 38**



Q&A

SIM Focuses on Advocacy

Nancy Markle, the new president of the Society for Information Management, lays out her three-part agenda: awareness, chapter growth and the creation of alliances for legislative advocacy. **Page 40**

OPINION

The Top Five Issues for CIOs

Barbara Gomolski says Sarbanes-Oxley compliance, outsourcing, security, project prioritization and cost management are the hottest issues that CIOs will face this year. **Page 42**



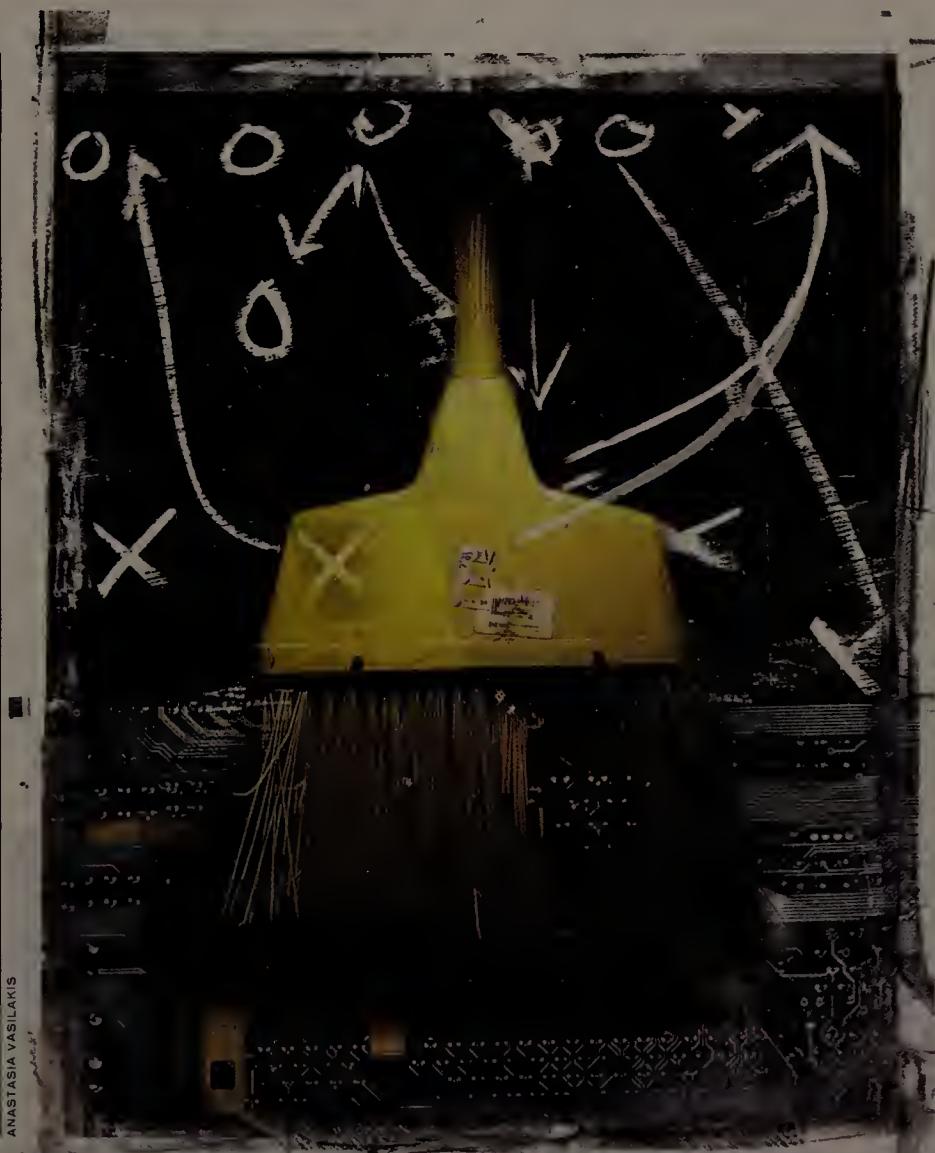
Here are four proven strategies for identifying and clearing out costly shelfware.

BY JULIA KING

RESEARCHERS ESTIMATE that seven out of 10 companies have little or no idea who exactly uses the software deployed throughout their businesses. Many of these companies are equally clueless about what their software portfolios include and whether the applications have actually been installed or remain shrink-wrapped and collecting dust on cubicle shelves.

In 1999, U.S. corporations wasted \$90 billion by buying IT assets they already owned, buying the wrong technology and making unnecessary payments for returned and retired hardware and software assets, according to Meta Group Inc.

Five years later, the same problems remain rampant. Gartner Inc. estimates that most companies typically have about a 30% discrepancy between what they think is in their IT inventory and what they really have. Yet many still fail to collect and integrate software usage data into their overall IT management plans. Consequently, U.S. businesses continue to overbuy licenses for 60% of their software portfolios and are noncompliant on another 30%



ANASTASIA VASILAKIS

SOFTWARE Sweep

of their software assets, Gartner says. But poor IT asset management isn't the only culprit. So-called shelfware can accumulate as a result of canceled or scaled-back projects, corporate downsizings, decentralized IT purchases, a failure to adequately train and subsequently monitor users or a failure to buy the right technology to begin with.

Here are four proven tactics for identifying and clearing out shelfware, plus leveraging the software you have to yield maximum business value:

1 PURCHASE JUST IN TIME. Buying only the software you need — and only when you're ready to use it — sounds simple enough. Yet vendors' offers of hefty volume discounts, sometimes as high as 50%, frequently induce companies to buy ahead for projects still in the planning stages or to buy more licenses than they immediately need as a way to accommodate future growth. Neither option is a good deal, experts say.

"It's a time-delay issue. The more you buy, the better the deal you get up-front, but the more maintenance you pay down the road," says Gartner analyst Scott Nelson. He notes that vendors usually peg maintenance fees to list prices, not discounted prices, and the fees kick in immediately, regardless of whether the software has been installed. The upshot is that the long-

term savings are negligible.

That's one big reason CIO Jim Jackson says he doesn't purchase software suites for his company, Intertape Polymer Group Inc. in Bradenton, Fla. Instead, Jackson and his IT team identify the specific requirements of a user group and then buy an off-the-shelf software package that meets 70% to 75% of those requirements.

"That way, I achieve immediate benefit on the implementation of that product," he explains. "I then look at the remaining requirements and, in most cases, I can go out again and buy another off-the-shelf package and bolt it on and achieve up to 90% of the original requirements. I've never had to go more than one iteration beyond [the original package]." The result: "I don't have software sitting on the shelf," Jackson says.

2 HIRE A SOFTWARE EVANGELIST. "You have to put someone in place and make them accountable for watching over an application to make sure it has a business impact," says CIO Rich Bursek at Lydian Trust Co. in Palm Beach Gardens, Fla.

Lydian recently implemented a multimillion-dollar IP telephony system from Cisco Systems Inc., and Bursek hired a dedicated person whose job is to make sure that users leverage all of the system's features. The evangelist

also conducts ongoing training and looks for additional ways to integrate the new IP telephony system with existing software.

Bursek also hired an evangelist for Lydian's deployment of enterprise business intelligence and reporting software from Crystal Decisions Inc. Because evangelists feel they have ownership of their particular applications, they tend to be passionate about their use, Bursek says.

But constant vigilance is also critical. Almost two years after completing a new \$10 million customer service and call center system, PacifiCorp, a Portland, Ore.-based electric utility, continues to monitor employees' usage and gather their feedback about the system as a way to gain maximum business value from it.

"After a system goes in, we monitor who's using it and ask if they need additional training and hold focus groups to see what changes they'd make," says Jann Davis, director of systems development and asset management.

One of the initial goals of the system was for PacifiCorp's 325 call center agents to handle 80% of incoming calls in less than 20 seconds. This entailed scripting responses tailored to the types of calls that typically came into the company's two call centers. But keeping the team to the 80/20 rule was a problem because certain team members wanted to script responses for the rarest types of customer requests, says Davis. "I had to keep pointing out we didn't need a Ferrari," Davis says.

3 CHARGE FOR SOFTWARE USAGE. If only one or two departments use a software application that costs, say, \$500,000 a year in license and maintenance fees, shift the expense to those departmental budgets, suggests Dave Dworkin, director of product management at Isogen Corp., an asset management software and consulting company in New York. "We see these types of applications all the time," he says. "And it's amazing how quickly the department can do without the application."

A variation on this pay-your-own-way model is in place at Houston-based BMC Software Inc., where all software purchases are approved by IT but are paid for by individual departments. "If someone wants a new application, they come to IT and ask for it, but they come with their checkbook,"

42%

says CIO Jay Gardner. An added benefit of BMC's centralized buying and strict IT governance model is a much more accurate picture of the company's hardware and software inventory and overall IT infrastructure usage.

"To control costs, you need a good understanding of which applications are using which servers, network components and databases. IT and CIOs have been forced to be more cognizant of this issue because they're much more accountable for the money they spend," Gardner says.

On the other hand, Lydian's Bursek says a decentralized IT buying model can also keep departments from over-buying software or buying software that languishes unused. At Lydian, each business unit has its own technology group and its own profit-and-loss responsibility. "They don't want to overbuy because it has a direct impact on their P&L," Bursek says.

4 REUSE AND RETIRE. Business departments seeking a new piece of software at The Vanguard Group Inc., a mutual funds giant in Valley Forge, Pa., take their requests to the so-called tech team, through which all IT acquisitions are made. Reusing standardized software already in place is the team's top priority. "If a [user] group wants an ad hoc reporting tool, we'll go through our [enterprisewide] inventory of applications, and if we have a standard tool in place, we tell them what it is and what it does. Then their job becomes knocking out the incumbent software," explains John Mercante, a principal who heads Vanguard's technology operations. Replacing software is a zero-sum exercise at the company. Multiple software tools and applications that do the same thing simply aren't tolerated, he says.

That's why retiring software is just as important as buying it, Mercante emphasizes. In 2002, Vanguard retired 87 software products when better ones came along to take their place. In 2001, it retired more than 100 applications. The company also has a dedicated program manager of software retirement.

"Pulling the plug is a very key metric for us," says Mercante. "We constantly look at what we brought in and what we've retired. It pays huge benefits, but you have to control monitoring and accountability." **43585**

Where and When to Start

Companies that launch a comprehensive software asset management program can expect to save 8% to 30% of their total software budgets, according to Dave Dworkin, director of product management at Isogen. Best of all is that the bulk of savings are located in one convenient place — your corporate mainframe.

"It's tempting to start an asset management program with desktops because everybody thinks that's the biggest problem, but it's not the area of immediate savings," Dworkin says. "It's much better to start with the mainframes because you know where

they are and you have full-time systems administrators who can go after them."

Dworkin also says the best time to start a software asset management program is when a new CIO or CEO comes on board. "Those people don't have a history. It's their job to come in and get a jump-start." In contrast, he says, veteran CIOs can be defensive about launching an aggressive software asset management program. "A lot of them see it as [an effort] that's going to definitely prove they haven't been doing a good job for the past five years," Dworkin says.

— Julia King

A Railroad FINDS ITS VOICE

New system turns radio messages from the locomotive into shipment-tracking data for managers and customers. By Bob Brewin

ANY CASUAL SHIPPER can tap into a FedEx or UPS Web site and determine the location of even the smallest of packages. But until recently, The Burlington Northern and Santa Fe Railway Co. (BNSF) tracked its trains the old-fashioned way, through two-way voice radios located in every locomotive cab.

Train crews dropped off cars and then radioed that information back to a dispatcher at BNSF's high-tech network operations center at the railroad's headquarters in Fort Worth, Texas. The dispatchers would then have to type these reports into DB2 databases running on IBM mainframe computers.

Though BNSF could communicate with train crews over engine-cab radios hooked into a private microwave system that spanned 14,000 miles in 27 states, the system provided "static information," according to John Hicks,

CASE STUDY

BNSF's director of unified messaging. Crews would start their day with written work orders and turn them in at the end of the day — with periodic calls to report cars dropped off or picked up. Jeff Campbell, BNSF's CIO, viewed this approach as outdated, cumbersome and incapable of meeting the demands of customers and railroad management for near-real-time data. Last year, BNSF launched a project to automatically turn those voice radio calls into data capable of integration into the company's computer systems.

Campbell says BNSF decided to use its voice radios as the interface to an interactive voice response system and tapped ScanSoft Inc. in Peabody, Mass., to provide it with speech-recognition software. ScanSoft had never integrated IVR with a radio system before, and the company found it a challenge, said

Rob Kassel, ScanSoft's senior product manager for network speech.

That's because two-way radio systems have lower fidelity than the phone lines traditionally used with IVR. The fidelity problem was compounded by the noisy environment of a locomotive cab, Kassel adds. ScanSoft built the BNSF IVR application on its SpeechWorks software and added noise filters. ScanSoft also sampled engineer radio calls to teach the software to recognize speech generated in such a noisy environment.

Although this is an unusual application of an IVR, Dan Miller, an analyst at Zelos Group Inc. in San Francisco, says radio-to-data interfaces are the next frontier for IVR systems. There's a "huge growth potential" within many industries, including trucking, utilities and field service fleet firms, he says.

Once ScanSoft completed its work, Campbell says, BNSF integrated the SpeechWorks software with an IVR platform from Intervoice Inc. in Dallas and a digital radio interface from Telex Communications Inc. in Burnsville, Minn. Beth Bonjour, assistant vice president of technology at BNSF, says the railroad then wrote the middleware to integrate what the company calls the Radio Telephony Interface (RTI) into its systems.

Dispatchers at BNSF's network operations center control the RTI through a phone icon on their screens, Hicks says. This shows all the radio frequencies as well as cell phone and landline connections. When a train crew calls in, the dispatcher clicks on the appropriate link, and the RTI takes the crew through an interactive audio menu with prompts for information such as car number and location.

BNSF rolled out the RTI in its Fort Worth division last year and plans to take it systemwide by 2005, starting with its Gulf and East Texas divisions this year, Campbell says. He declines to break out the cost of the RTI but says BNSF's IT budget will hit \$274 million this year, up \$1.5 million from 2003.

The result, Hicks says, is a system that automatically integrates radio calls with back-end systems, providing BNSF with a level of visibility into its trains and individual cars it never had before. Campbell says this "improves customer satisfaction" by allowing BNSF to update its Transportation Support System in near real time. The RTI allows BNSF to provide customers with more frequent information on car moves "and closer expected time of arrival," Campbell says. **Q 43987**



A BNSF coal train

A BIG TRAIN SET

Burlington Northern Santa Fe has started to deploy a wireless-LAN-based Remote Control Locomotive (RCL) system to all its switch engines, in hopes of boosting efficiency and cutting accidents.

BNSF uses the switch engines to make up trains in its rail yards. This involves coupling cars to the switcher, moving them from one track to another and then coupling them to the new train. This has traditionally been managed by a conductor on the ground, communicating via radio or hand signals with an engineer in the cab — and it's a recipe for accidents, according to BNSF CIO Jeff Campbell. The conductors can't see the engineers in the locomotives and vice versa, a situation that sometimes results in bone-crushing injuries.

BNSF started last year to replace these two-person switch crews with one-person RCL systems, which consist of a belt-pack device worn by a yard worker that mimics all locomotive controls — including the horn — and is hooked up by a WLAN link to a controller in the unmanned cab.

BNSF uses RCL systems from Saint-Laurent, Quebec-based CANAC Inc. and the Erie, Pa.-based GE Transportation Systems division of General Electric Co. The CANAC WLAN operates in the licensed 450-MHz band, while the GE version operates in the unlicensed 900-MHz band.

Though RCLs might seem hazardous, Campbell says that in 10 years of use on Canadian railroads — which pioneered RCL — yard accidents have dropped 40%. The RCL belt pack has built-in safety features, including a tilt mechanism that shuts down the locomotive if the operator bends by more than 45 degrees.

BNSF currently has 220 switch locomotives equipped with RCL. The railroad expects to have all its switch engines equipped with RCL by 2005.

Campbell says that, besides improving safety, RCL has already started to pay off on the bottom line. "We can build a train faster with one person than two, and we don't need switch engineers any longer," Campbell says. The switch engineers are all being offered jobs on long-haul freights, he adds.

—Bob Brewin



's network operations center in Fort Worth, Texas

THE IT ORGANIZATION at GE Real Estate has automated most of the front-end processes for commercial real estate financing, which means employees can close deals faster and move on to the next ones.

That's important because, while most of the U.S. economy has been sputtering over the past three years, the commercial real estate sector has been white-hot. Prices for shopping malls, office buildings and industrial complexes have shot through the roof with intensified competition.

"It's very competitive out there, and with interest rates being low, we have to work harder to be competitive," says Michele Gabriele, director of North American technology at GE Real Estate, a division of GE Commercial Finance, one of four finance arms of General Electric Co.

Not that GE Real Estate had been underperforming. In 2000 and 2001, the company's earnings grew 24% and 25%, respectively, according to GE's annual reports. "Our business was doing well without much use of technology, but there were real opportunities to improve through automation," says Hank Zupnick, GE Real Estate's CIO.

Historically, many of the activities at GE that support commercial real estate financing deals were conducted manually, like calling or faxing in the details of an engineering report and entering them into the deal binder, says Zupnick. Whenever the status of a deal had to be updated, that would trigger a flurry of phone calls and faxes among 15 to 20 people, including salespeople, underwriters, appraisers and credit risk managers, says Gabriele.

In 2001, GE saw an opportunity to automate the lion's share of those activities while making the sales cycle more efficient and accurate. That year, the company began developing a customized, browser-based system using deal management software from New York-based CapitalThinking Inc.

The Java-based system, which GE calls RE Source, electronically captures most of the information that goes into a commercial real estate deal and makes it available online to key participants. That has cut costs and shortened the sales cycle for deals in the \$10 million to \$100 million range by 10% to 20%, says Zupnick.

"Thanks to this technology, we've been able to underwrite 25% more deals and remove \$8 million to \$9 million in expense each year for the past two years with the same amount of staff," Zupnick says.

Although it's tough to quantify the precise impact the seven-figure IT investment has had on the company's revenue, Zupnick says that the system paid for itself within a year. In addition, GE Real Estate's earnings rose 23% from \$650 million in 2002 to \$845 million in 2003, according to Dan Smith, senior vice president of the North America Debt group in Dallas.

"The revenue side is a lot trickier to measure, but we hear a lot of people in the company saying we wouldn't have been able to do as many deals and do them faster than we could two years

ago," he adds.

"The bottom-line impact is more apparent from a productivity standpoint" than the top-line gains are, says Smith.

For instance, GE salespeople used to travel more often to get needed changes and approvals on deals, says Gabriele. By

creating a collaborative system where approvals can be done electronically, she says, salespeople "are freed up in the field to work on the next deal."

Zupnick acknowledges that competitors such as Royal Bank of Canada and J.P. Morgan Chase & Co. have invested in comparable systems. Indeed, com-

AT A GLANCE

GE Real Estate

Stamford, Conn.

Primary business:

Commercial real estate debt and equity financing

Size: Nearly \$28B in assets

Employees: 6,000

mercial real estate management has become much more automated than it used to be, says Thomas Glendening, president of Front Street on the Hudson LLC, a Newburgh, N.Y.-based developer of distressed commercial properties.

"Even at a conventional level, what used to take weeks and months for financing approval can now be done in hours," says Glendening.

Investments in GE's RE Source project included adding Oracle database licenses; adding Sun Microsystems V880 Unix servers for testing, staging, production and backup systems; and hiring a few Java programmers and cross-training some veteran IT workers on Java, says Gabriele.

The core system was customized by GE development teams in Stamford, Conn., and Dallas, and by CapitalThinking. It is used by about 1,000 people and includes workflow, document management, reporting and e-mail notification capabilities.

When the system went live in January 2002, 10 people from both CapitalThinking and GE were working on the project. Now nine GE staffers provide support and additional enhancements to RE Source.

Zupnick and Gabriele's team brought in end users from a variety of departments early on and asked them how the system could be enhanced to make them more productive. Getting business peers to free up their time to work on the system "is often one of the biggest challenges," says Zupnick. But he and Gabriele were able to gain their commitment by highlighting the benefits of the system.

For example, RE Source uses color-coded fields to reflect a deal's status, such as whether the financing terms have been proposed or accepted. And if a deal gets approved, says Gabriele, salespeople are automatically notified on their BlackBerry devices. GE salespeople can send and receive information about a pending deal using their BlackBerrys, but they can't approve deals using their mobile devices, says Zupnick. GE will consider adding that feature next year.

GE schedules four updates to the system each year. Current work includes incorporating an enhanced version of the system that's used in Japan to make it easier and faster for salespeople to prescreen potential deals, says Gabriele.

Whatever enhancements do come, Zupnick sees them as affirmation of a successful project. "That the business is continuing to invest in technology is a validation of our work." **Q 44009**

Closing THE Deal

A JAVA-BASED SYSTEM ENABLES GE REAL ESTATE TO UNDERWRITE 25% MORE TRANSACTIONS PER YEAR.

BY THOMAS HOFFMAN



JENNIE ZEINER

Hank Zupnick is the director of North America technology for GE Real Estate.

“Our system is very efficient, but there is always room to improve through automation.

Hank Zupnick

“It's very competitive out there, and with interest rates being low, we have to work harder to be competitive.



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SIM Focuses On Advocacy

New president of CIO group seeks alliances to lobby on legislation.



Q&A

Nancy Markle this month starts her one-year term as president of the Society for Information Management (SIM), a Chicago-based professional association that provides resources and programs to help IT leaders develop their

management skills and enhance their business knowledge. She has worked as a consultant and was formerly CIO at Arthur Andersen LLP. Markle spoke with Computerworld's Jean Consilvio about what she hopes to accomplish in the coming year and what CIOs can gain from being members of SIM.

Has SIM membership increased? It's been growing by about 5% to 10% a year. We've got about 70% CIOs/DIOs [direct reports to CIOs] and senior IT leaders, and 30% are thought leaders, academicians, that type of thing.

What are thought leaders? We look at people who are in consulting or other areas, such as vendors and vendor partners. We select those who we think are going to contribute to the IT industry.

How has the group's demographics changed? [About six or seven] years ago, we set as a goal to make it about 70% on the CIO level and to move out of a vendor-type of relationship into a more partner/thought-leader type of relationship. We're there and intend to keep it that way.

How's meeting attendance? [At] our last national conference in New York, we had 600 people attend. It really depends on what it's all about. If you have good speakers and really excellent topics, they will come because they can learn. There might be a chapter meeting that isn't well attended, and it probably was because the interest level wasn't there.

What are your priorities for this year? I have three areas of focus. One is increasing awareness of what we're about and the advocacy areas. The second is helping the chapters in terms of supporting them, new-chapter development and helping the existing chapters learn from each other as well as getting support from the executive committee.

The third is the evolution of SIM — the growth of CIOs, collaboration partners and helping all of us to be better. We're talking to other groups that are trying to do similar things for their industry, like FEI [Financial Executives International], about some collaboration. We've already done webcasts together, and we're talking about joining on advocacy and other things.

How are you bringing in new blood, other than the Regional Learning Forum students, who are members only while they're in that program? We invite CIOs as potential members to attend regional conferences, so as they learn about the advantages of being a member and what that brings to their careers and companies, their interest is piqued. That's where we get a lot of additional membership.

What are three significant things a CIO at a large company can get out of being a member of SIM? The No. 1 is networking with other CIOs and finding out their successes, challenges, who they're working with, finding out those who are doing the same type of projects.

And there are learning opportunities

at the conferences, meetings and through the special education programs we have. We just started the Strategic Business Leadership Program because we're finding that the No. 1 area of interest is the alignment between technology and the business. CEOs have told us that they want their CIOs to talk to them in business terms. They want to know the ROI and potential challenges from a business perspective. They don't particularly want to talk about technology; instead, they want to talk about how their business will change and grow and prosper as a result of changing the way they do business through technology.

Society for Information Management

HEADQUARTERS: Chicago

WEB SITE: www.simnet.org

CHAPTERS: 30

MEMBERS: 3,000

LENGTH OF MEMBERSHIP:

1-5 years	77.4%
6-10 years	13.6%
11-20 years	8.7%
20+ years	0.3%

A SAMPLING OF PROGRAMS

- **SMR Regional Leadership Program:** CIOs come together to learn what they think they're going to be doing in the future.
- **Strategic Business Leadership Program:** Program has a focus on business rather than technology and learn what needs to be done in an organization.
- **Advanced Practices Committee:** Focuses on how to be a better CIO, how to be a better manager.

The last thing is about giving back and making the IT profession better, being more proactive in advocating things [in the public policy field] that will help the industry.

What legislation might SIM be involved in this year? There's a lot of legislation coming down, like Sarbanes-Oxley, privacy and HIPAA regulations.

But can SIM help? We research the legislation that's coming down and look at the potential problems with it. It sounds good on paper, but when you go to implement it the way it's written, it might be pretty onerous. Where if it's written slightly differently, you'd get the same effect, but you wouldn't have a great deal of money and time being spent by an organization trying to implement it.

On the other hand, if there looks like there's legislation coming in that we don't think is in the best interest of the technology community, we'll try to see what we can do about changing that legislation or defeating it. An example of that would be the UCITA last year. And we are absolutely looking at Sarbanes-Oxley.

How do you investigate looming legislation? We have a vice president for advocacy and communities of interest who is on our board. We poll the membership and see who is interested in that particular legislation. We form a group, and we use the SIM Web site to make it available to the membership at large. That group researches it and comes up with recommendations for SIM. We send that out to the chapters for feedback.

In some cases, we'll align with other organizations that are doing similar research. We aligned with AFFECT [Americans for Fair Electronic Commerce Transactions] for UCITA. With Sarbanes-Oxley, we may be aligning with FEI, but that's not definite yet.

Do you think CIOs have lost credibility with their CEOs and CFOs? I don't think they've lost credibility; I think the credibility is spotty. At our national conference, Dick Nolan, who is a Harvard professor, said that boards are beginning to have a fourth major committee, [called] technology oversight. FedEx has it; a number of banks have them. I think what you're going to be seeing over the next year is more demand on the CIO's relationship with his peers, more demand by the board for the CIO to be visible and explaining what's going on from a technology perspective. **43995**

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BRIEFS

Midwest Bank Hires Security Exec

Kurt A. Troyer has joined Midwest Banc Holdings Inc. as vice president and information services security officer. He will lead security efforts for e-mail, data processing and related IT systems across Midwest Banc and its four subsidiaries. He also will be responsible for setting policies and security standards as well as the auditing of operations at the Melrose Park, Ill.-based bank holding company. Troyer most recently was vice president of IT at Covest Bank NA in Des Plaines, Ill.

Automotive Lender Promotes CIO

Onyx Acceptance Corp., an auto lender in Foothill Ranch, Calif., has promoted its CIO, Todd Pierson, to executive vice president and chief operating officer. Since 1999, Pierson has been responsible for all IT systems, applications and communications. In his new role as COO, he will have the added responsibility of all loan servicing operations. Pierson started his career 18 years ago as a systems engineer at Hewlett-Packard Co. In 1991, he joined Ceridian Tax Service.

NPR Names CIO



National Public Radio, a nonprofit radio service in Washington, has hired Robert G. Holstein as CIO. He will manage the communications systems and IT infrastructure that support more than 700 employees in 36 locations worldwide. He will also be responsible for creating processes for IT investment and sourcing. Holstein has 23 years' experience in communications and IT. He most recently spent seven years as business information officer at Capital One Financial Inc., where he built the infrastructure for the telecom businesses the credit card issuer owned from 1995 to 2001.

HOLSTEIN

Robert G. Holstein

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BARBARA GOMOLSKI

The Top Five Issues for CIOs

ALTHOUGH many of us are looking forward to this new year with an eye toward the improving economy, it's shaping up to be a challenging one for IT managers. Here are the most important IT management issues that CIOs will confront in 2004:

1. Sarbanes-Oxley. While the Sarbanes-Oxley Act is mainly about accounting reform, it will have big implications for IT organizations in the coming year. In the first phase of Sarbanes-Oxley projects, already well under way in most companies, IT has been asked to work closely with finance and outside auditors to catalog existing financial reporting systems. (If the IT group isn't involved at this stage, that's a red flag.)

To date, finance departments have taken the lead on Sarbanes-Oxley compliance, and IT departments have been participating from the sidelines. However, you should expect the IT organization's involvement to grow as this megaproject moves to the next level. Better yet, get involved in Sarbanes-Oxley compliance efforts in your organization now, so you won't be blindsided by the requirements for the budget and labor resources you'll have to apply to this initiative. What's more, your participation at the early stages will greatly improve the chances that your company will ultimately succeed in its efforts to comply with the legislation.

2. IT sourcing. How and where will you get your IT organization's work done? That's a question many IT leaders will grapple with in the coming



BARBARA GOMOLSKI, a former *Computerworld* reporter, is a vice president at Gartner Inc., where she focuses on financial management. Contact her at gomolski@yahoo.com.

year. Some IT managers will be wooed by the offshore outsourcing hype without fully understanding the risks. Others will fail to take advantage of alternative sourcing models in order to maintain the status quo. In some companies, the chief financial officer will drive the push to outsource IT, believing it to be the most cost-effective approach.

In 2004, many IT leaders will have to evaluate their current methods of

staffing, as this issue is now visible at the highest levels of the organization. Therefore, it behooves IT managers to proactively consider their sourcing options, keeping in mind that those options will continue to evolve throughout the year.

A key part of this exercise is determining whether your current model allows the IT organization (and the company as a whole) to be competitive. Answering this question will prove difficult for the many CIOs who lack the internal statistics to determine the IT organization's core competencies. For many IT leaders, the best approach will be to step back and determine what the IT group is really good at, before diving into a new sourcing model.

3. Project prioritization. I won't belabor this one, because my previous column dealt with this topic [QuickLink

42986]. Suffice it to say that there's a backlog of work for IT organizations, but only a little more money in 2004. Sound project prioritization and governance is needed to avoid a train wreck.

4. Security. If you couldn't tell from the persistent virus outbreaks in 2003, we aren't done with this problem yet. Despite their best efforts, many companies were temporarily crippled by viruses last year. These high-profile outages are bad for business and bad for IT organizations. Expect 2004 to bring growing interest in behavior-based blocking technologies (that scan PCs for security policy violations when the PCs connect to the network) and intrusion-prevention technologies. During 2004, companies will also continue to deal with business continuity planning. Many enterprises will struggle with the basics of disaster recovery, while more advanced users will move on to business process resiliency and recovery, as well as improving incident response and crisis management.

5. Continued focus on cost. While IT budgets are stabilizing, there will continue to be a focus on cost this year. Cost reduction is now a core component of many IT organizations' ongoing improvement programs. The challenge here is to continuously drive out unnecessary costs without hurting the organization in the long run.

Expect a greater level of accountability throughout the enterprise regarding cost, too. Promised cost savings are more likely to be tracked, and managers will increasingly be held accountable and rewarded based in part on their ability to deliver the expected savings. ☐ 43992

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Reference: Persons interested in this position may send correspondence to:
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Systems Analyst. Design, implement & test computer network protocols and systems using TCP/IP stack, routing, media access protocols, QoS & ATM with C & C++. Also test protocol conformance with RFC standards. Requirements: Masters in Computer Science or Computer Engineering or Electrical Engineering. 40-hr work. Job/Interview Site: Culver City, CA. Send resume to Scalable Network Technologies, Inc. 6071 Bristol Parkway, # 200, Culver City, CA 90230.

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Programmer/System Analyst. Perform duties w/ the Business Info. Systems (BIS) group. Programming support for Amgen's e-procurement system (Ariba), related documentation activities, & other programming support as necessary. Req. Master in Comp. Sci. or Industrial Engineering & Operations Research or Related Technical Field & 1 yr exp in job or 1 yr exp as a Consultant. Send ad & resume: Kyle Foster, Amgen Inc., One Amgen Center Dr., Thousand Oaks, CA 91320-1799 (jobsite). Include Ad# 03-489FV.

Systems Analysts (Job 60) to analyze, design logistics apps in data warehousing envr using Oracle, VB, PL/SQL, Access under Windows OSs; analyze, conduct studies to design systems for cost reductions and process improvements, support business intelligence and metric reporting; integrate, transform data used for management analysis and decision support. Require: B.S. in CS/Engg (any branch) or related field and 2 yrs exp in job offered. MS in any of the above will also be accepted F/T. Resumes to: Priscilla Vickers, Transplace, 509 Enterprise Drive, Lowell, AR 72745. Please specify job 60 on cover letter.

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Software Analyst to design, develop, analyze and execution of test plans, test cases, test scripts using Silk Test, Silk Performer, Mercury Win Runner, Load Runner, Ration test suite, Mercury test director on Unix and Windows Platform. Require: BS Degree in Science/Engineering or a closely related field with 2 years of progressively responsible experience in the Job offered or in the related occupation of Programmer/Analyst. Extensive travel on assignments to various client sites within the US is required. Competitive Salary offered. Apply by resume to: Ravi Kandimalla, President, Everest Computers, Inc. 875 Old Roswell Lakes Road, Suite E 400 Roswell GA 30076. Attn: Job: RR

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Should have a Bachelor's Degree in Computer Science/Related field. Mail Resume to Verinon Technology Solutions Ltd., 200 South Executive Drive, Suite 101, Brookfield, WI 53003.

Systems Engineer III. Req. Bach. deg. in Comp. Sci. or related field & 2 yrs. exp. in job offered or 2 yrs. exp. in systems mgmt. All of exp. must incl. exp. w/Microsoft NT v4x & Microsoft Exchange e-mail system software, incl. 5.5 & E2k. Exp. must also incl. Microsoft Windows 2000 Server & Advanced Server; UNIX SendMail; TCP/IP Networking Concepts (DNS, DHCP, etc.); Enterprise Backup Solution; BlackBerry Server; & Right Fax. Must have at least 1 yr. of exp. managing a project from planning to implementation stage. In lieu of Bach. deg., will accept add'l. 5 yrs. of exp. in comp. sci. field. Work w/team to perform systems mgmt. & admin. for all Exchange infrastr. systems utilized w/in TBS worldwide, w/a focus on global server messaging. Conduct hardware & software config., performance & capacity planning, syst. monitoring, tape backup admin., syst. sizing & client config. 40 hrs/wk. Send resume to C. Sumsky, TBS International, Inc. One CNN Center, Box 105366, Atlanta, GA 30348.

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Manager, E-Commerce and Web Development

Sennheiser Electronic Corporation has an opening in its Old Lyme, Connecticut office for a Manager, E-Commerce and Web Development.

Conceptualizes and creates the marketing, media and business content to be placed on the company's website. Localizes existing German websites and online applications including their conventions and nomenclature to be suitable for the local U.S. market. Organizes editorial revisions of foreign language (German) electro-acoustic product information, press releases and promotional content to be published on the company's U.S. website. Forecasts and analyzes marketing, finance and other electro-acoustic industry related business conditions affecting current and future marketing policies. Analyzes, develops and implements web based marketing and media content to improve marketing strategies and promotional programs.

Must possess at least a bachelor's degree or its equivalent in Economics, Marketing or a related field and relevant work experience, including experience in field of Content Migration and Localization of foreign language (German/English) Internet Applications and technical ability to maintain, manage and develop corporate Internet resources such as web, mail, ftp servers and content management systems.

Resume and/or cover letter must reflect each requirement above and specify reference code MEWD/MGA or it will be rejected.

Forward resume to HR Department, Sennheiser Electronic Corporation, One Enterprise Drive, Old Lyme, CT 06371

Software engineer to design, develop and test computer programs for business applications; analyze software requirements to determine feasibility of design; direct software system testing procedures using expertise in PeopleSoft GradeBook, Campus Community, Contributor Relations and Financial Aid Modules. Requirements: Bachelor's Degree or equivalent in Computer Science or related field and two years experience as a software engineer or computer programmer, knowledge of PeopleSoft GradeBook, Campus Community, Contributor Relations and Financial Aid Modules. Salary: \$70,242/year. Working Conditions: 8:00 A.M. to 5:00 P.M., 40 hours/week, involves extensive travel and frequent relocation. Apply: BECS/ CareerLink Program Supervisor, Indiana County CareerLink, 300 Indian Springs Road, Indiana, PA 15701, Job No. WEB384540.

Applications Programmer: Under supervision of Senior Programmer: develop project specifications in consultation with clients; design, develop project specifications in consultation with clients; design, develop, modify & implement applications to meet client requirements. Supervise lower level programmers to ensure compliance with project specifications. Code, test, debug & document software applications. Must have: Bachelor's or equivalent in Engineering or Computer Science, 3 yrs. exper. in job offered or 3 yrs. exper. in IT or programming. Salary: \$50,350/yr 40 hr/wk, M-F, 8 a.m. - 5 p.m. Submit two (2) resumes to: Case #200202998, Division of Career Services, Labor Certification Unit, 19 Staniford St., 1st fl., Boston, MA 02114.

Senior Java Engineer wanted to work in West Hollywood, California to be responsible for core, back-end technology development including the design/architecture of new Java-based solutions as well as the optimization/acceleration of dynamic web content through caching and database development; building Java Servlets/JSP systems to scale; designing and coding application components and converts prototypes into functioning applications; developing detailed specifications to describe site functionality and data requirements; developing unit and system test applications; providing documentation for developed applications and maintaining technical and documentation standards; coordinating change-control information in order to facilitate applications promotion into production web environments; conducting application troubleshooting and resolution; working with e-commerce product teams to develop prototypes of site form and function; leading site walk-throughs and peer reviews; and mentoring team members on projects, programming, analysis, troubleshooting and project management skills. Requires BA/BS in Computer Science or Information Systems; 3 to 5 years of progressive experience with JAVA server side development; at least 2 years of experience with RDMS (Oracle preferred) and programming experience with a large corporate level dot-com and/or web-enabled business; and Bachelor degree level or above coursework in each of the following: Unix Operating Systems; Java Internet Programming. Send resume; copy of transcripts and diploma; letters confirming experience; and salary requirements to Linda Doughty, Director, Employee Relations, Entertainment Publications, 2125 Butterfield Road, Troy, MI 48084.

SOFTWARE ENGINEER to design, develop and test various modules of embedded software and perform Configuration Management for the mobile communication industry using Clearcase, ClearQuest, Java and C/C++ under Windows NT and UNIX operating systems; Automate Processes and Builds using Shell and PERL scripts; Prepare Configuration Management plans for new projects; Participate in Change Control Boards; Mentor and train junior staff members in Clearcase and ClearQuest Administration. Require: B.S. degree in Computer Science, an Engineering discipline, or a closely related field with three years of experience in the job offered. Competitive salary offered. Send resume to: Nancy A. Geraghty, Vice President, Human Resources, Panasonic Mobile Communications Development Corporation, 1225 Northbrook Pkwy., Suwanee, GA 30024. Attention Job SH.

SOFTWARE ENGINEER to design, develop, test, implement and maintain application software using Informix 4GL, ISQL, Forms/Reports, Stored Procedures, Oracle, PL/SQL, Shell Script, Awk, Cold Fusion, Java, JavaScript, Crystal Reports, Visio, Erwin, HTML, DHTML and MS Office Tools under UNIX and Windows NT operating systems. Require: M.S. degree in Computer Science/Engineering, or a closely related field with 2 yrs of exp in the job offered or as a Programmer/Analyst. Extensive travel on assignments to various client sites within the U.S. is required. Competitive salary offered. Send resume to: Sundeep Chaudhry, Elite Solutions, Inc., 1670 Reserve Way, Suite 203, Decatur, GA 30033; Attn: Job PT.

SimpliCTI Software Solutions, providing CRM software development and implementation services seeks Software Engineers to design, develop, test and implement customized servers for clients to activate the integration of multiple, disparate systems for customer contact routing and reporting. Positions require a Master's Degree in Computer Science, Engineering, or a related field of study and two years experience as a Software Engineer or Database Developer. Experience must include Database Engineering and Object Oriented Programming. May be gained pre or post Master's.

Senior Software Engineers to design, develop, test and implement mixed-media Customer Relationship Management (CRM) solutions, including CTI, IVR, web-based applications and email. Position require a Bachelor's degree in Computer Science, Engineering or a related field as well as five years experience as a Communications Software Designer.

Positions are located in Cary, NC. Interested applications should email their resume, Attention: Wen Kai Ho at simplicti@simplicti.com or by fax to (919) 858-8891.

Systems Analysts w/at least 4 yrs exp sought to analyze, dsgn, dvl, test, integrate, document & implmt s/ware prgms & systems using SQL Server, Oracle, Sybase, SQL, Rational Rose & Object Oriented Visual UML Modeling on Unix & Win platforms. Equiv deg & exp also accepted. Exc. Pay & Brnts. Mail resume w/proof of work status to HR Dept, Information & Technology Management, 6 Kilmer Rd, Edison, NJ 08817.

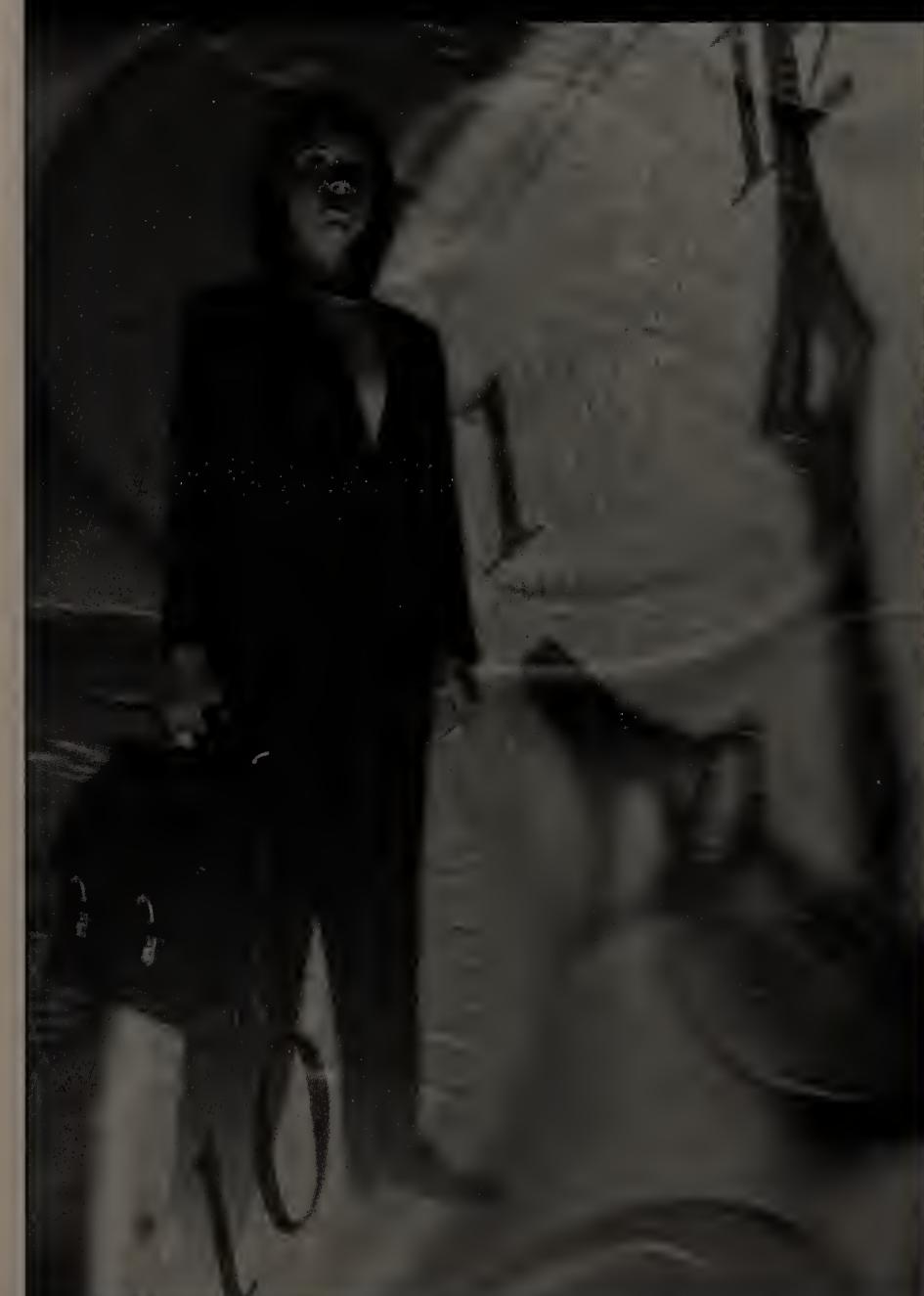
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Craig Stedman, assistant News editor (508) 820-8120
Mitch Betts, Features editor (301) 262-8243
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Frank Hayes, senior news columnist (503) 252-0100

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Robert L. Mitchell, senior editor (508) 820-8177
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Gary H. Anthes, national correspondent (703) 536-9233
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Sharon Machlis, managing editor/online (508) 820-8231
Ken Mingis, online news editor (508) 820-8545
Marian Prokop, online editor at large (508) 820-7717
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ADMINISTRATIVE SUPPORT

Linda Gorgone, office manager (508) 820-8176
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CONTRIBUTING COLUMNISTS

Pimm Fox, **Michael Gartenberg**,
Dan Gillmor, **Paul Glen**, **Thornton A. May**,
David Moschella, **Bart Perkins**,
Nicholas Petreley, **Paul A. Strassmann**

CONTRIBUTING WRITERS

Mary Brandel, **Russell Kay**, **Sami Lais**,
Kathleen Melymuka, **Robert L. Scheier**, **Steve Ulfelder**

GENERAL INFORMATION

TELEPHONE/FAX

Main phone number (508) 879-0700
All editors unless otherwise noted below
Main fax number (508) 875-8931
24-hour news tip line (508) 820-7716

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ADODE SYSTEMS INC.	32
ADVANCED MICRO DEVICES INC.	34
ALLSTREAM CORP.	18
ALTERPOINT INC.	34
AMAZON COM INC.	19
AMBERTEK GROUP	1
AMERICA ONLINE INC.	30
AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS	32
AMERICAN POWER CONVERSION CORP.	8
APPLE COMPUTER INC.	119
APPSSHOP INC.	4
ARTHUR ANOERSEN LLP	40
ASCENTIAL SOFTWARE CORP.	14
AT&T WIRELESS SERVICES INC.	4
ATTITUDE LLC.	23
BANK OF AMERICA CORP.	18
BANKING INDUSTRY	
TECHNOLOGY SECRETARIAT	10
BARNES & NOBLE INC.	19
BEVERLY ENTERPRISES INC.	12
BLUE SKY STUDIOS INC.	1
BMC SOFTWARE INC.	35
BURTON GROUP	23
CABLE & WIRELESS PLC	4
CALPINE CORP.	5
CAMPAGN SUPERSTORE	28
CANAC INC.	37
CAN/IN USA INC.	1
CAPITAL ONE FINANCIAL INC.	42
CAPITAL THINKING INC.	38
CARFIRST INC.	1
CENTRA SOFTWARE INC.	24
CERIOIAN TAX SERVICE	42
CHECK POINT SOFTWARE TECHNOLOGIES LTD.	5
CIPHERTRUST INC.	8
CISCO SYSTEMS INC.	5.12.35
CITRIX SYSTEMS INC.	12
CLEARCUBE TECHNOLOGY INC.	12
CLOUD MONITOR PLC	18
OCML ORGANIZATION	30
OEAR FOR AMERICA	28
DELL INC.	8.19
OEIBOLD INC.	28
EBAY INC.	19
EMC CORP.	14
ENDERLE GROUP	12
ENTERPRISE APPLICATIONS CONSULTING	51
EXPEDIA INC.	19
EXTREME NETWORKS INC.	12
FEDEX CORP.	37.40
FERRARI SPA	35
FINANCIAL EXECUTIVES INTERNATIONAL	40
FORD MOTOR CO.	23
FORRESTER RESEARCH INC.	1
FORTIS INC.	10
FOUNDRY NETWORKS INC.	12
FOUNDSTONE INC.	5
FOX FILMED ENTERTAINMENT	1

FRONT STREET ON THE HUDSON LLC.	38
GARTNER INC.	35.42
GE COMMERCIAL FINANCE	38
GE REAL ESTATE	38
GE TRANSPORTATION SYSTEMS	37
GENERAL ELECTRIC CO.	1.57.38
GEORGIA DEPARTMENT OF TECHNICAL AND ADULT EDUCATION	8
GOOGLE INC.	18.19.24
GORES TECHNOLOGY GROUP LLC.	4
HARLEY-DAVIDSON INC.	23
HARVARD UNIVERSITY	40
HEWLETT-PACKARD CO.	1.12.14.18.30.42
IBM	1.8.11.14.18.19.23.30.34.37.52
IOC	10.11.12.14
IMG	10
INDY MAC BANK	1
INETO SERVICES INC.	8
INFOEXPRESS INC.	5
INFORMATICA CORP.	14
INFORMATION RESOURCES INC.	5
INFORMATION SECURITY INSTITUTE	28
INTEL CORP.	18.34
INTERNATIONAL STANDARDS ORGANIZATION	10
INTERNET ARCHITECTURE BOARD	30
INTERTAPE POLYMER GROUP INC.	35
INTERVOICE INC.	37
INTUIT INC.	4
ISOGON CORP.	35.38
J.C. PENNEY CO.	1
J.O. EDWARDS & CO.	8
J.P. MORGAN CHASE & CO.	1.38
JOE LIEBERMAN FOR PRESIDENT INC.	28
JOHNS HOPKINS UNIVERSITY	5.28
KAZAA.COM	19
KINETICODE INC.	28
LASZLO SYSTEMS INC.	8
LIBERTARIAN PARTY	28
LYDIAN TRUST CO.	35
MACROMEDIA INC.	8
MASTERCARD INTERNATIONAL INC.	18
MCKINSEY & CO.	18
META GROUP INC.	11.16.35
METRO GROUP	1
MFS INVESTMENT MANAGEMENT	5
MICROSOFT CORP.	4.6.11.18.19.29.32.34
MIDWEST BANC HOLDINGS INC.	42
MONSANTO CO.	34
NATIONAL PUBLIC RADIO	42
NAUTICUS NETWORKS INC.	8
NEON.COM INC.	1
NETSCALER INC.	34
NETWORK ASSOCIATES INC.	5
NORTEL NETWORKS LTD.	12
NOVELL INC.	1.14.52
OFFICE DEPOT INC.	1
OKLAHOMA HEART HOSPITAL	12
OMNITRUST SECURITY SYSTEMS INC.	3
ONYX ACCEPTANCE CORP.	42
OPEN SOURCE	
DEVELOPMENT LABS	14
OPSWARE INC.	30
ORACLE APPLICATIONS	
USERS GROUP	51
ORACLE CORP.	1.4.8.11.18.34.38.51
ORBITZ INC.	19
OVERTURE SERVICES INC.	15
PACIFICORP.	35
PALMONE INC.	14
PALO ALTO RESEARCH CENTER INC.	31
PARAMETRIC TECHNOLOGY CORP.	11
PAYPAL INC.	8.19
PEOPLESOFIT INC.	8.11.14.51
PETCO ANIMAL SUPPLIES INC.	1
PING INC.	11
PLASTIC LOGIC LTD.	31
PROBIX INC.	8
PROGRESSIVE STRATEGIES INC.	14
RED HAT INC.	11.24.28.34.52
REDMONK LLC	11
ROYAL BANK OF CANADA	38
SAND HILL GROUP LLC	18
SANDIA NATIONAL LABORATORIES	51
SANS INSTITUTE	32
SAP AG	4.8.11.14.51
SAVIE COMMUNICATIONS CORP.	4
SCANSOFT INC.	37
SEARS ROEBUCK AND CO.	1.18
SEGWAY LLC	4
SEVENSPACE INC.	10
SIEBEL SYSTEMS INC.	8.18
SIK APART LTD.	23
SOAR TECHNOLOGY INC.	23
SOCIALTEXT INC.	23.24
SOCIETY FOR INFORMATION MANAGEMENT	40
SOURCEFORGE.NET	18
SPRINT CORP.	4
STRATEGIC RESEARCH INSTITUTE LP	1
STRATUS TECHNOLOGIES INTERNATIONAL	16
SUN MICROSYSTEMS INC.	8.14.30.38
SUSE LINUX AG	1.24
SYGATE TECHNOLOGIES INC.	5
SYMANTEC CORP.	5
TARGET CORP.	18
TECHDIRT INC.	23.24
TELEX COMMUNICATIONS INC.	37
TESCO PLC	1
THE ASSOCIATED PRESS	18
THE BOEING CO.	34
THE BURLINGTON NORTHERN AND SANTA FE RAILWAY CO.	37
THE CENTURY FOUNDATION	5
THE GILLETTE CO.	1.4
THE L.D. KICHLER CO.	8
THE NEIMAN MARCUS GROUP INC.	1
THE ORGANIZATION FOR THE RIGHTS OF AMERICAN WORKERS INC.	1
THE SCO GROUP INC.	11.45.2
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THE YANKEE GROUP	5
TIBCO SOFTWARE INC.	11
TIME WARNER INC.	18
TOYOTA MOTOR CORP.	34
TRACTION SOFTWARE INC.	23
TRENG MICRO INC.	5
TWI INTERACTIVE INC.	10
U.S. ARMY	23
U.S. DEPARTMENT OF DEFENSE	14.23
U.S. SECURITIES AND EXCHANGE COMMISSION	4
UNITED PARCEL SERVICE INC.	37
UNIVERSITY OF CALIFORNIA, BERKELEY	5.31
UNIVERSITY OF IOWA	28
UNIVERSITY OF MICHIGAN	30
UPSHOT CORP.	8
VA SOFTWARE INC.	18
VANQUISH INC.	8
VERITAS SOFTWARE CORP.	34
VMWARE INC.	34
VOTER SOLUTIONS INC.	28
WAL-MART STORES INC.	1.19.51
WAVEXPRESS INC.	28
WEBEX COMMUNICATIONS INC.	24
WEBMD CORP.	19
YAHOO INC.	18.19
ZELOS GROUP INC.	37
ZONE LABS INC.	5

Continued from page 1

Retail RFID

demonstrated far less knowledge about how the technology works. But as the new year begins, the executives are expressing great interest now that Wal-Mart Stores Inc. has directed its top 100 suppliers to put RFID tags on pallets and cases they ship to the retailer's three Texas distribution centers by next January.

"I'm sure Wal-Mart will help the industry by basically driving the requirement and driving the price points to make it more affordable," said Alan Lacy, CEO of Sears, Roebuck and Co. He said Sears will adopt RFID "as it makes economic sense," since it expects to see benefits in the areas of inventory tracking and theft protection.

Creating Momentum

"For every new technology, there tends to be somebody who creates the momentum, whether it be bar codes or EDI," said Phillip Maxwell, CIO at The Neiman Marcus Group Inc. in Dallas. "I think that's what happened here."

Maxwell said the high value and uniqueness of his company's products will make them good candidates for RFID tags. But he expects it to be at least three years before Neiman Marcus uses RFID, because the company will require item-level tags. The first phase of RFID will be at the pallet and case levels, he said.

But several retailers said they're anxious to get to item-level tagging. Brian Devine, CEO of Petco Animal Supplies Inc. in San Diego, said he can envision the day when a customer will be able to simply push a shopping cart through an RFID-enabled arch and swipe a credit card to pay for his purchases, with no individual scanning necessary. He said another arch could disen-

gage the tags for privacy-conscious customers.

But while Devine can foresee pallet-level tagging within the next three years, he expects that it will take much longer for item-level tagging because of the costs, not only of the tags but also of the infrastructure that goes with it.

Some retail analysts predicted that it could take more than a decade for item-level tagging to gain wide usage among mass retailers. Christine Overby, an analyst at Forrester Research Inc. in Cambridge, Mass., estimated that it will take five to seven years for the rollout of RFID in the supply chain and two decades for item-level tagging on the consumer end because of privacy implications and "sheer costs."

Early adopters are also cautious in their predictions for item-level tagging. Wal-Mart isn't even doing it yet. Metro Group, a German retailer, is piloting item-level tagging, but CEO Hans-Joachim Körber said it will take 10 to 15 years to gain universal acceptance [QuickLink 44114].

Colin Cobain, IT director at U.K.-based retailer Tesco PLC, said his company's pilot with Gillette razor blades showed that the technology works, but the cost of the tags and readers was too high to bring a return. Tesco is currently negotiating with its reader and application provider to finalize a business case for tagging DVDs, but Cobain is cautious.

Happy to Wait

"I don't want to be the guy who's actually going first and making it a real cheap case to anybody who follows," he said.

That attitude is shared by many other retailers, which are happy to benefit from the lessons learned by early adopters such as Wal-Mart.

"I don't ever want to be a leader on things like that because there's no advantage — but you can be a quick copier," said Allen Questrom, CEO of

J.C. Penney Co. in Plano, Texas. "Why pay a lot of money when things are going to change, and you've got to be able to adapt to the changes?"

Questrom said he was the "last person" to move to Internet-based retailing because he couldn't figure out how to make money on it. He said his site now makes money.

Bruce Nelson, CEO of Office Depot Inc. in Delray Beach, Fla., predicted that adoption will vary by industry, and he's content to "wait and see how it unfolds." Nelson said he has business, IT and

logistics staffers studying RFID, and he expects that the company will try it within two to five years because of the "enormous potential payoff."

But Nelson has concerns. He cited the risk of adopting technology that has yet to be standardized as well as the expense of the tags, readers and systems integration. He added that it won't make economic sense to tag small-ticket items like pencils, for instance, and he fears that if some products carry tags and others don't, his company could need two systems to handle the data.

Last year, the cost of the RFID tags — which currently ranges from about 25 to 50 cents each — appeared to be the major concern among retailers and suppliers. Now their concerns have become broader.

Sears CIO Gary Kelly said the cost of the readers and middleware that will be needed to take full advantage of RFID, not merely the cost of the tags, is driving the economics. "You really have to have pervasive read capability wherever you apply this," he said. **Q 44258**

Oracle to Add RFID Support to Its Apps

Will also announce new pricing, outsourcing options at AppsWorld

BY MARC L. SONGINI

AT ITS ANNUAL conference for users of its business applications this week, Oracle Corp. will unveil new software pricing and outsourcing options as well as plans to embed radio frequency identification (RFID) technology in its products.

Oracle said in a written statement that it plans to discuss its RFID strategy at the AppsWorld event, which is due to begin tomorrow in San Diego. The company also will make other announcements related to its E-Business Suite Ili line of applications, but it declined to provide any details. Nor would it say when the RFID technology is scheduled to become available as part of Ili.

Oracle would be the second major applications vendor to embrace RFID this month. Two weeks ago, ERP market leader SAP AG said it had bundled RFID data manage-

ment capabilities into some of its applications, including its SAP Event Management supply chain module [QuickLink 44133].

The RFID enhancements being promised by Oracle are of interest to Gary Concannon, manager of the business technologies department at Sandia National Laboratories in Albuquerque and a member of the board of directors at the independent Oracle Applications Users Group.

Tracking Lab Equipment

Sandia runs Version 11.5.8 of Oracle's financial, manufacturing and procurement applications. Concannon said he wants to use integrated RFID technology to track the billions of dollars' worth of testing equipment installed in the lab via a wireless network.

He's also interested in learning more about Oracle's business intelligence tools at AppsWorld, as well as the possibility of using its software

portal as a window for all end users to access the Ili suite.

Joshua Greenbaum, an analyst at Enterprise Applications Consulting in Daly City, Calif., said SAP, Oracle and other ERP vendors accelerated their push to support RFID after Wal-Mart Stores Inc. mandated last June that its top 100 suppliers adopt the technology in their supply chain operations by January 2005 [QuickLink 39181].

Despite the planned RFID announcement and the other new developments, Oracle's focus at AppsWorld will likely be on more routine issues, such as upgrade cycles, rather than major technology rollouts, Greenbaum said.

He added that Oracle needs to do more marketing of its applications, as opposed to its database and infrastructure software business. The company has also been focusing too much attention and energy on its hostile bid to buy rival PeopleSoft Inc. and not enough on developing its own internal strengths and structure, according to Greenbaum.

Q 44240

FRANK HAYES ■ FRANKLY SPEAKING

Weirder & Weirder

YOU PROBABLY THOUGHT things couldn't get any weirder with The SCO Group and Linux, didn't you? Of course they could. Last week, the company that claims all Linux users owe it royalties sued Novell for "slander of title." Now that's weird. Impressive, certainly — "slander" gives it a sort of Hollywood-starlet-vs.-supermarket-tabloid sexiness. But chances are, unless you're a lawyer, you don't have the slightest idea what it means.

Now, why would SCO want to confuse you that way?

Here's the background: Last summer, SCO claimed that it owns all the copyrights associated with Unix and that Novell sold it those rights in a 1995 contract. That's important to SCO's legal claims, because SCO needs to own the Unix copyrights in order to sue Linux users for infringing them. No Unix copyrights, no Linux copyright-infringement suits.

But Novell said SCO was wrong — first privately in letters to SCO, and later publicly. Novell said that it didn't sign away its Unix copyrights in that 1995 contract and that it still owns all the copyrights to Unix.

Sounds like a contract dispute, right? SCO claims the 1995 contract says one thing; Novell claims it says something different.

But instead of filing a contract lawsuit, SCO has sued Novell for "slander of title."

What is that? Slander of title is usually invoked when someone owns real estate and someone else questions that ownership, making it difficult or impossible for the owner to sell the property.

Applying that idea to Unix copyrights, SCO says Novell has publicly claimed that SCO doesn't own those copyrights — thus discouraging Linux users from paying royalties to SCO.

Yes, that's a weird way to approach what's really a contract dispute over software copyrights. And that's telling, because there's only one reason why lawyers choose an oddball way of pursuing a suit. They do that when it looks like the straightforward approach won't work.

Judges like straightforward approaches. Juries do, too. And it's a judge and jury that will eventually have to decide what that 1995 contract said and who should own the Unix copyrights.

If SCO's lawyers could make a

good case with a contract lawsuit, they would. Apparently, they can't.

It turns out that SCO's lawyers aren't likely to have much luck with a slander-of-title suit either. It won't pry loose the Unix copyrights from Novell, since that's a contract issue that's not affected by any of Novell's public statements. And a slander-of-title lawsuit is likely to be tossed out by a judge, whose first question will be, "Why didn't you file a contract suit?"

Ah, but until then, it sounds impressive, doesn't it? Almost as impressive as SCO's recent claim that open-source software is unconstitutional, or as the letter SCO sent to members of Congress insisting that Linux is a threat to the U.S. economy and national security. It may all be meaningless, but it looks pretty good in press releases and news stories.

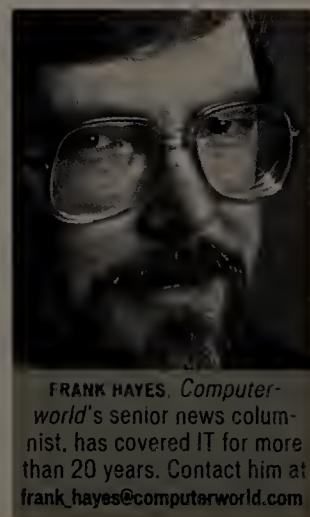
So why would SCO want to be sowing all that weirdness and confusion?

Could it be for the same reason that SCO has had such trouble coming up with convincing examples of copyright infringement? And credible evidence of IBM contract violations? And a viable defense against the lawsuit Red Hat filed against SCO last August?

After all the success SCO's management has had using legal threats to pump up the stock price from less than \$1 per share to more than \$20 late last year, could it be that SCO's executives — or at least its lawyers — figured out months ago that SCO hasn't got a case against Linux?

Could it be that they keep piling on the lawsuits and the rhetoric for fear that if they stop now, SCO's stock price will collapse and they'll be buried by shareholder lawsuits and an SEC investigation?

Naaah — that would just be too weird. **44217**



FRANK HAYES, Computerworld's senior news columnist, has covered IT for more than 20 years. Contact him at frank.hayes@computerworld.com

Seemed Like a Good Idea . . .

This executive's laptop always fails during takeoff on the company's private jet. After the laptop checks out OK on the ground, IT pilot fish gets a directive: Ride up and down in the plane as many times as necessary to troubleshoot it. "After several takeoffs and landings, it was determined that the laptop had a loose wire that moved with the force of takeoff," sighs fish. "It cost more for testing than a new laptop would have cost."

Nice Try

Company policy allows only IT people to move PCs. So this support pilot fish is irritated when he eyeballs the reason for one remote user's network problems — the cable is being crushed by a cubicle wall. "We moved the PC to the other side and then lifted the wall and threw the cable underneath and then reconnected it," user explains. Fish: Why didn't you call me to do it for you? User: "We didn't want you to have to make the trip out here."



the company, the whiteboard is moved to the IT conference room — but is never plugged in or hooked up to a PC. After six months and several attempts to get the board working, pilot fish asks technology manager what the problem is. "The power supply seems to have been lost during the move," manager says. "I'm pretty sure it will work if we find the power supply. We just haven't made it a priority, since no one really uses it."

Brilliant Idea

IT pilot fish is watching the shop during a big company celebration, when at 11 p.m. a call comes in: The server won't respond. Fish heads to the server room to check it out. "And it was about 110 degrees in there," fish says. Seems the celebration's finale included fireworks launched from the roof. "Engineering decided that the air conditioning would suck the smoke into the building," grumbles fish. "So they shut it off."

Change of Plan

The plan: When the baby comes, this outsourcing pilot fish will turn over his projects, with updated notes, and take a month's vacation. The call, 11 a.m.: "Her contractions were mild and 10 minutes apart," fish reports, "so I told her I'd be home by midafternoon, as soon as I wrapped up the last of my turnover duties." The second call, 11:11 a.m.: "Her mother suggested I get my butt home right then, or she would be coming to get me," says fish. "I considered my turnover complete and told my boss so — over my shoulder, as I bolted for the door."

How Would They?

This CIO buys an electronic whiteboard for his office. When he leaves



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